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North Korean Air Force at War: Part 2
UN SAAB S29s in the Congo
Air War Libya 1911-1912
Luxembourg's Air Arm
Olkchovsky's Torpedo
Ecuador Bell 230

vol. 35 no. 2 (138)

October 2011

Air War Libya – 2011

Italian Aircraft in Operation Unified Protector

Photos from Italian Air Force via Roberto Gentilli



SMALL AIR FORCES OBSERVER

The Journal of the Small Air Forces Clearing House

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COVER COMMENTS: When the Korean War began the ROKAF's inventory included five Stinson L-5 Sentinel liaison aircraft based at Seoul's Youi-do airfield. They were used to maintain contact with the outlying ROK army units flying from five unimproved airfields elsewhere in the country. This example (s/n 42-99203) is now on display at the Korean War Memorial Museum in Seoul, South Korea. (Detlef Billig)



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AUSTRIA

ÖFH NACHRICHTEN (Oesterrichische Flugzug Historiker, Pfenninggeldf 18/2/14, A-1160 Wien. Write for free sample.)

2/11 (44 pages) "Cessna L-19 Birdog der Luftstreikräfte" 14 pages on The Birdog in Austrian AF including 22 b&w photos, 6 color photos, and 8 color profile drawings. "Vor 50 Jahren SAAB J 29F: Österreichs erstes Düsenkampfflugzeug" 2 pages including 3 photos.

CZECH REPUBLIC

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#67 (60 pages) "311 (Czech) Squadron Liberator GR. Mk.V" 3 pages including 2 color profile drawings (one with stub wings carrying 8 rocket projectiles; an easy but unique modification for the adventurous modeler). "Avie Zvana Mezek v Izraeli" 5 pages including 8 photos. "Nakajima Ki-43-II Kai" 2 pages including 2 photos and 4 color profile drawings (one Indonesian). "Rendezvouss Chrestysem" 6 pages on F-105 including one photos and 2 color profile drawings. "Hatfieldsky zazrak u modrem" 6 pages on photo Mosquito including 6 photos and color 5-view drawing. "Wolfgang Falck: Otec nocich stihacu" 10 pages including 5 photos and 7 pages of 1/72-scale drawings of Me 110E.

#68 (60 pages) "Zarucena rake ... ?" 9 pages in including 8 photos, a color 5-view drawing, and 4 pages of 1/72-scale drawings of LaGG-3." "Pruzumne Mirage s Davidovou Hvezdou" 5 pages on Israeli Mirages including 4 photos and 4 color profile drawings ('798' with *Tarnil* nose, '458' with *Tsniut* nose, '199' with *Tashbetz* nose, and '498' with *Tsniut* nose). [Ed: the Mirage with the long *Tsniut* proboscis looks quite ridiculous. Does anyone know of a 1/72-scale conversion kit for this version?] "Banana: Maresciallo pilot Ennio Tarantola" 8 pages including 11 photos

and 6 color profile drawings [SCW CR.32, G.50, & Italian Ju-87R (4)]. "Barrie S. Davis – zokej od Checkertail Clanu" 5 pages including 7 photos and 3 color profile drawing (P-51D). "Avro Anson Mk.I" 2 pages with 5 photos.

#69 (60 pages) "Hriechy letca Vaclava Sloufa" 3 pages including 9 photos (Letov 239). "Zarucena rake ... ?" 5 more pages on LaGG-3 including 9 photos and 2 color 3-view drawings. "Vaclav Eisman – zalba leteckeho mechanika" 6 pages including 6 photos and 2 color profile drawings (Austro-Hungarian Ufag C.I & Hansa Brandenburg C.I). "Banana ..." 6 more pages on Ennio Tarantola including 4 photos, 2 color 2-view drawing (C.202 & G.55) and 2 color profile drawings (C.202 & G.55). "Me 110F" 9 pages including 4 color profile drawings and 7 pages of 1/72-scale drawings. "Avia B-534 ve sluzbach Luftwaffe" 3 pages with 6 photos and 2 color profile drawings. "Avia B-534" 2 pages with 5 photos of B-534 in Czechoslovak service.

#70 (60 pages) "311 (Czech) Squadron Liberator GR. Mk.V" 3 more pages including 3 color profile drawings (with the best drawings I've seen of the underwing Leigh Light). "Italsti sokoli nad Albionem" 7 pages on Cr.42 over England including 2 photos, one color profile drawing, and 3 pages of 1/72-scale drawings. "Lucky 13: Bob De Haven" 6 pages including 7 photos, and 4 color profile drawings [P-40N (2), P-38L, & Ki-43]. "Fi 156 Storch" 2 pages with 5 photos. "Owl" 3 pages with 6 color profile drawings of Bf 110 night fighters.

FINLAND

MALLARI (IPMS Finland, PL 798, 00101 Helsinki 10; 6 issues \$20.00, no check accepted due to the high redemption costs). Text in Finnish.

FRANCE

AVIONS: Toute l'Aeronautique et son Histoire (Lela Presse, 29 rue Paul Bert, 62230 Outreau, France. 50 euro for 6 issues). Website: www.avions-bateaux.com. E-mail: contact@avions-bateaux.com.

#182 Juillet-Août (76 pages) "Le Polikarpov U-2 s'en va-t-en Guerre: 1941-1945" 13 pages including 22 photos and 8 color profile drawings. "Les As

Francais 1939-1945: Marcel Albert (fin)" 12 pages including victory list, 22 photos, and 3 color profile drawings (Yak-3). "Amelia Earhart (fin)" 6 pages including 14 photos. "Farman 190 à 199" Plans et Commentaries" 6 pages including 4 pages of 1/100-scale multi-view drawings and 4 color profile drawings. "Morane-Saulnier 406 sur Oran: Novembre 1939-Juillet 1940 (fin)" 7 pages including 6 photos and 3 color profile drawings. "Un mécanicien de l'Armée de l'Air: de la campagne de France à la Guerre d'Algérie (3)" 8 pages including 29 photos.

GERMANY

FLIEGER REVUE EXTRA (Verlag Fliegerrevue, Herrn Detlef Billig, Oranienamm 48, D-13469 Berlin. 4 issues per year, \$66 surface. Payment by check drawn on German bank)

#33 (114 pages) "Polens erste Luftwaffe: 1919-1922" 28 pages including one map, 87 photos, and 9 color profile drawings [Albatros B.II (3), Albatros C.X, Albatros C.XII, Halberstadt CL.II, Albatros D.III, Fokker E.V, & Friedrichshafen FF 33E]. "Sri Lanka Luftwaffe wurde 60" 12 pages including one map and 26 photos of aircraft in the current inventory. "Deutsche Torpedoflieger 1922-1935" 26 pages, 36 photos, a color 3-view drawing (HE 14), and a color drawing of torpedo F 5. "Dänemarks Luftwaffe im Kalten Krieg" 34 pages including one map, 3 Orders of Battle (1956, 1978, & 1990), Table listing all post-WW2 Danish AF aircraft (code, type, number, dates of service, & units), 101 photos, and 9 excellent color 6-view drawings by SAFCH Member Tony Ruffiner [Spitfire IXe, Meteor F-4, Meteor F-8, Meteor T-7, F-35 Draken (2), TF-35 Draken, Hunter F-51, & Hunter F-53].

ITALY

JP4 Menslie di Aeronautica e Spazio. Via XX Settembre, 60-50129 Firenze, Italy. Email: jp4@dueservice.com. Website: www.ediservice.it.

Luglio 2011 (100 pages) Color photos: Thai C212 and Malta Meteor F.8 (In Maltese museum with Malta insignia). "NATO Tiger Meet 2011" 6 pages including 14 photos. "Procedono I programmi dei nuovi caccia cinesi" 2

pages including 7 photos of Red Chinese fighter projects. "Incidenti Militari" one page including 4 photos (Afghan Mi-17, RAAF PC-9, Taiwan T-34C, & Honduras T-27 Tucano).

Agosto 2011 (100 pages) "Fueras Aeromóviles del Ejército de Tierra" 6 pages on Spanish Army helicopters including 6 photos (EC135, Super Puma, CH-47, & EC665 Tigre). "Incidenti Militari" one page including 4 photos (Ecuador CN-235, Poland Mi-24, South Korea Ilushin T-103, & Colombia Super King Air).

USA

SKYWAYS: The Journal of the Airplane 1920-1940 (PO Box 730, Red Hook, NY 12571. Website: ww1aeroinc.org. E-mail: subscriptions@worldwar1aeroinc.org. E-mail: ww1aero@gmail.com. Print copies available at ww1aeroinc.org/store.

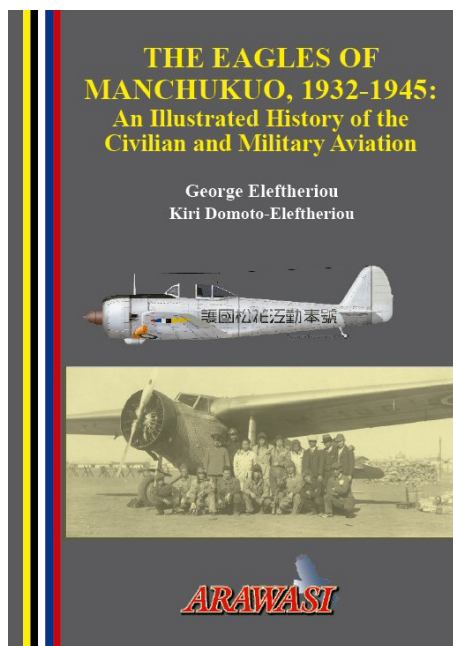
#94 April 2011 (96 pages) "Sperry Messenger Experiments 1921-1924" 9 pages including 19 photos (2 in color). "Monocoupe 70" 12 pages including 16

color photos of a restoration project. "Martin MB10" 13 pages on the ex-Argentine B-10 now at the National Museum of the USAF including 7 photos of the restoration, 8 cockpit photos, and 7 photos of B-10 at Mitchel Field. "Moundsville Lone Eagle" 9 pages including 9 photos and a scale 3-view drawing. "Chamberin 2-S" 5 pages 20 photos of a restoration project. "Flying with Clarence Chamberin" 4 pages with 6 photos of Curtiss Condors. "ID UNK" one page with 3 photos. "Reproductions and Restorations" one page including 6 photos. "Models" 3 pages including 13 photos. "Golden Age Simulations' Stinsons" 6-page history including 19 photo and two 3-view drawings (Model S & Model SM2 'Junior'. "From the Members" 3 pages

#96 July 2011 (96 pages) "Fokker Trimotor Flight – Over the North Pole" 7-page reprint of 1926 article by Floyd Bennett including 13 photos. "Mystery of the Josephine Ford" 6 pages on background of FVIA-3m including 7

photos and 21 color photo of the Josephine Ford in the Henry Ford Museum. "Eberhart XFG" 11 pages including 17 photos of construction details, 7 photos of complete a/c, and scale 3-view drawing – plus 2 color photo of the Eberhart-built SE-5A. "Fleet Model 2 Lands at NASM" 7 pages including 9 color photos. "Roosevelt Field Fleet Photo Album" 2 pages with 11 photos. "Garland Lincoln Nieuport 28" 8 pages including 16 photos and a scale 3-view drawing. "Sperry Messenger" 4 pages with 3 color photos of the Messenger at the NASM and a 3-page scale 3-view drawing. "Sperry Instruments" 6 pages including 25 photos. "Reproductions and Restorations" one page with 6 photos. "Models" 6 pages including 6 photos. "Mattioni Botte 'Volante' one page on the 1922 'barrel' a/c including 4 photos and a small 3-view drawing. "From the Members" 2 pages.

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The Eagles of Manchuo, 1932-1945: An Illustrated History of the Civilian and Military Aviation, by George Eleftheriou and Kiri Domoto-Eleftheriou. Published by Arawasi.

Editor: This book was brought to my attention by Sergio Luis dos Santos (SAFCH #1202) of Brazil. For more information consult the website: <http://www.arawasi.jp/salebook.hp/ar-amag/Manchukuo.html>.

Bulgarian Aviation during the Cold War, by Dimitar Nedialkov. 341 pages. 300+ black & white photos, drawings, and tables. Soft cover. In Bulgarian. \$14.76 or €10.00.

"Col. Prof. Dimitar Nedialkov Ph. D. is still an active pilot with more than 1500h flying hours on L-29, MiG-15, MiG-17, MiG-21 and Su-22. As a scientist he has 60 publications, including 11 monographs. The most recent ones are: *The Genesis of Air Power*, *Air Power of the Kingdom of Bulgaria*, *Bulgarian Fighters* and *Japan against Russia in The SkyoOf Nomonhan*, etc."

Editor: I haven't seen this book, but I do have other books from this publisher and they are excellent. This and other books on Bulgarian aviation are available on the Internet at Bulariana.com for

Republic F-84E/G Thunderjet in RNethAF Service, by Tim van Kampen. Dutch Profile #12.

An A-4 publication with 48 pages with black & white and color photos as well as color profiles of the Thunderjet in Dutch service. The text is bilingual; in Dutch and English. Included are many new photos of the Thunderjet during service in the Netherlands. Also available separately are decal sheets for Dutch Thunderjets in 32, 48, and 72 scale.

Published by Dutch Profile. Website: www.dutchprofile.nl. E-mail: info@dutchprofile.nl.

THE LIBYAN CAMPAIGN 1911-1912

John Cochrane

[Editor's note: October of 2011 is the 100th anniversary of the first use of heavier-than-air aircraft in warfare. To commemorate this event, John Cochrane provides details about Italian air operation in Tripolitania (present-day Libya).]

The so-called 'Scramble for Africa', in which the main European nations vied with each other to establish territorial rights to areas of that continent was a feature of the 1880s and the 1890s. As far as North Africa was concerned, by 1900 the French were well established in Tunis, Algeria and Morocco, and, although Egypt was still nominally under the control of the Ottoman Empire, it was in reality a British 'protectorate', largely to guard the Suez Canal, the gateway to India. Only the provinces of Tripolitania and Cyrenaica were firmly under Turkish rule. Italy had possessions in East Africa but had a strong wish to control the central area of North Africa. The Italians perceived the weakening state of the Ottoman Empire and therefore sent an ultimatum to Constantinople on 28 September 1911, demanding immediate military control of the two provinces. The Italians had misjudged the current resurgence of more liberal elements in the Turkish government. That nation had more or less lost Egypt, as well as Bosnia, Crete and large tracts of the Balkans with hardly any resistance, and the new government personified by Enver Bey and Kemal Ataturk said enough was enough. Although there were serious problems in fighting a defensive campaign in North Africa instead of say the Balkans, history dictated that there it was that Turkey would make its stand against a European power. Italian control of the sea, and the refusal of the 'neutral' British government to allow the passage of troops through Egypt, made the situation of the Turkish forces in North Africa untenable, so they turned for support to the somewhat unreliable Senussi Arab tribesmen.

Italy did not receive a reply to her twenty four hour ultimatum, so declared war on Turkey on 29th September.

The first Italian military aviation school had been established at Aviano on 19 April 1911, but the majority of aircraft in Italy were owned privately,

although usually by officers of the army or navy. A number of the civilian owners who had learnt to fly in France, formed a Corps of Aviators in January 1911 under Leonino de Zara and offered themselves, and their aircraft to the Ministry of War for participation in the annual summer manoeuvres. On 25 September the military officers who owned aircraft were mobilized for the coming invasion of Libya. They were Captains Carlos Piazza, in command, Ricardo Moizo and de Rada, 2nd Lieutenant Giulio Gavotti, and Lieutenant Ugo de Rossi, together with six reserve pilots and thirty other ranks. Crated up and loaded onto ships were two Blériot XIs, two Henri Farmans, three Nieuport monoplanes, and two Etrich Taubes. They were dispatched to Libya on 15 October and were assembled, rigged and ready for action on the 21st.

At 0619 hours on 25th October Captain Piazza took off in one of the Blériots and discovered a Turkish column advancing on the Italian beachhead near Tripoli, and returned with this information at 0720. This is the first recorded use of a heavier than air aircraft in an actual war situation. Captain Ricardo Moizo then took up one of the Nieuports on a forty minute flight. He issued no report, but confirmed Piazza's. Moizo also collected three bullet holes in his wings from rifle fire when flying over the Turkish encampment at the Ain Zara oasis. In the ensuing days, the other aircraft were tried out. Giulio Gavotti in a Taube, and Ugo de Rossi in a Farman, made several reconnaissance flights. Gavotti directed the guns of the Italian battleship 'Sardegna'. His method was to observe the hits from the ship's guns and then drop messages in sealed tins onto the deck of the warship to indicate the necessary corrections. It naturally occurred to Gavotti that if he could drop tins onto the deck of a battleship with reasonable accuracy it might be worth taking a few grenades on his next reconnaissance flight over the enemy lines. Surely however he was aware that to drop objects with any accuracy he would have to fly very low; and the enemy would shoot back!

On 1st November 1911 Gavotti took with him four two kilogram Cipelli grenades. Three he dropped on the oasis at Taguira and the other on the encampment

at Ain Zara. So ended the first bombing raid by a heavier than air aeroplane, in war.

By the end of October the Italians were in full occupation of the towns of Tripoli, Derna, Homs and Benghazi, but were under constant attack by Senussi Arabs, especially on Tripoli. The Ottoman authorities instigated these. To counter these attacks, reconnaissance flights were regularly flown, and also, on 5 November, Italy formally annexed the provinces of Tripolitania and Cyrenaica. On this day, de Rada flew a reconnaissance flight in a Farman, accompanied by Moizo and Piazza. Moizo dropped two grenades on Ain Zara, followed by Piazza, who also dropped two. By this time the Turkish authorities were routinely claiming that the grenades were hitting a military hospital.

The Italian brigantine 'Cavalmarino' had been adapted to carry a Parseval kite balloon, and on 11 November this was raised to spot for the gunners on the cruiser 'Carlo Alberto' and the battleship 'Re Umberto', who were shelling Turkish positions. Although the 'Cavalmarino's' balloon broke free on 12 December, some success was achieved. This was the first wartime use of a ship-borne balloon spotting for artillery since the 'George Washington Parke Custis' on the James River in 1862. It is interesting to note that the speed of development of the heavier than air aircraft is shown that in this embryonic air war, the aeroplane achieved success in artillery spotting and reconnaissance some weeks before the captive balloon.

At the end of November, the Italian forces adopted a more offensive attitude by moving out of the Tripoli defences and into the Libyan hinterland. The oasis at Ain Zara was taken on 4 December. No hospital was found, but it is possible that tents for the wounded may have been damaged from the air. Taguira fell on the 13th. The President of the Italian Aero Club and a number of civilians, together with eight army pilots, were sent to Derna and Tobruk, together with a separate unit, which included the Forlanini-designed dirigible airships, P 2 and P 3. Although some reconnaissance flights took place, bad weather effectively stopped the use of airships until the following March.

Turkish small arms and rifle fire was getting more troublesome. Several aircraft returned from missions

with bullet holes, but there was very little real damage and no injuries. Lieutenant Roberti suffered several hits on his aircraft from shrapnel and 'retaliated' by flying over the enemy and dropping his visiting cards - just as Duruof had done in the siege of Paris.

At the end of 1911 Italy was in control of most of the Tripolitanian and Cyrenaican coastlands and was moving into the interior.

A Turkish officer, Lieutenant Süreyya Bey, had set up a flying school at San Stefano, near Constantinople in July 1911. Several potential Turkish pilots had been sent to training schools in France, Germany and England. By the end of 1911, Turkey had acquired some aircraft but it was obviously impractical to send any to North Africa.

At risk of causing a severe diplomatic incident between France and Italy (which was anyway at an all time low), Italian warships stopped and searched two French merchant ships sailing between Marseilles and Tunis. On 15 January, the 'Carthage' was found to be carrying a French aeroplane, pilot and mechanics on their way to support the Turks. The 18th saw the 'Menouba' stopped, even though liberally covered with the sign of the Red Cross. It was found to be carrying Turkish officers and equipment as passengers.

Meanwhile the Italian pilots were gaining experience. In February, Captain Piazza borrowed a camera from an engineering unit in Tripoli and fixed it to his Blériot. Although it was only possible to expose one plate per flight it was the start of viable photo reconnaissance in war. Later it was found that the Etrich Taube was so stable in level flight that the pilot could fly 'hands off' and use a camera much more usefully. More accurate bomb aiming using devices, which would allow for wind speed and the speed of the aircraft were attempted and by February it was possible to carry ten bombs in a box attached to the aircraft. These had been designed by the artillery officer Lieutenant Buontempelli and could be dropped singly or as a salvo. Also in February the Italian War Ministry appointed a Lieutenant Colonel, di Montezemolo, to take charge of the air campaign.

In March the airships P 2 and P 3 were ready and were used for bombing - including use of incendiaries in night raids - and scattering propaganda leaflets among the Arab tribesmen offering inducements to

desert the Turks and join the Italian side. Commandant Sulsi of the P 3 mounted a cine-camera to film the enemy below. The Italian authorities were very pleased with the work of the airships and their success did not go unnoticed by several of the German, French and British army officers or their observers who followed the campaign. During their service throughout 1912, the airships made 127 ascents, made 86 attacks on enemy positions dropping 330 bombs.

On 2 May 1912 Captain Marengo led the air group that was supporting the Italian forces based at Benghazi. He made several flights at night using a light fixed to his helmet to read his instruments and, on 11 June made the first night bombing raid by a heavier than air aircraft.

Between March and June of 1912 estimates of Turkish losses through air attack were twenty six dead and over seventy wounded. These were hardly high, but the effect on morale was considerable. Most of the value of the Italian air activity was however in reconnaissance. The sighting of a flank attack by Turkish cavalry and subsequent bombing materially affected the resulting victory for the Italians at the battle for the oasis at Zanzur on 8 June.

From April through the summer Italian forces had extended their theatre of operations. The navy had shelled the Dardenelles forts and had occupied the Dodecanese Islands. This occupation had been preceded by bombing attacks on the Turkish garrison on the island of Rhodes. This extension of the war disturbed the other Great Powers, with interests in the area, and gave encouragement to the smaller Balkan nations who wished to take advantage of Turkey's difficulties. The successful use of air power had not

gone unnoticed in Sofia, Belgrade and Athens, not to mention Berlin, Paris, London and St. Petersburg.

Captain Piazza was sent home following a severe bout of malaria and replaced by Captain Scapparo, with Second Lieutenant Lampugani in charge of operations in Cyrenaica

The Italians continued to move into the interior of Libya, taking Regdaline oasis on 16 August, and Sidi Balal on 20 September. On 25 August, at 0610 hours, Second lieutenant Pietro Manzini crashed his Bleriot into the sea, and became the first Italian air fatality. Although never proved, it is possible that this was the result of Turkish small arms fire. The Turks only attempt to improve on rifle fire to attack Italian aircraft was to bury the tail of a 90mm Krupp gun into the sand to give it enough elevation to fire at them. Although ineffective, it forced the Italians to increase their height of operations from 2,000 feet to 4,500 feet, to the detriment of both bombing and reconnaissance. It also caused the Italian government to purchase two of these Krupp guns for their own experiments. Although they feared no aerial threat from the Turks, they realized that against other nations things might be different.

The Libyan campaign was ended by the Treaty of Ouchy, signed on 15 October, a week after Montenegro's pre-arranged declaration of war on Turkey, and three days before Bulgaria, Serbia and Greece followed suite. The treaty, in effect gave total control of Libya to Italy.

John Cochrane (SAFCH 905), England.

See Photos on pages 71-72

All photos from the collection of RobertoA Gentilli

-wants & disposals-wants & disposals-wants & disposals-wants & disposals-

For Sale: **Consolidated PBY Catalina:** The Peacetime Record, by Davis Legg. Hardbound with dust cover. 300 pages, 383 photos (many in color). ISBN: 1-55750-245-5. Published by the Naval Institute Press (2002). \$45 plus postage. Notice that this covers only non military PBY in peacetime. Contact safo@redshift.com.

Free: A member in Finland sent me a "graphic novel" telling the story of a

Finnish airman who had shot down a Soviet Airacobra during the Winter War. Inside, the wreckage he found the photo of a beautiful girl who had placed the photo in the aircraft as a "good luck wish" while she was working at the Bell plant in Buffalo, New York. He keeps the photo and the story describes his adventures during the war. After the war, he immigrates to the US and contacts the girl. They marry and the story ends (actually begins) when he takes his

grandson to the USAF Museum and the young lad asked if he ever flew an Airacobra. The book has 98 large-format pages in color with Finnish text. It is remarkable for the accurate representations of Finnish and Soviet aircraft. It's an ideal book for any young aviation enthusiast learning Finnish. It is available from safo@redshift.com for the cost of postage.

Katangan Douglas C-47s

Serial/Reg.	Version	C/n	Previous IDs	Served from	Served to	Remarks
KP4	C-47B	20864	43-16398, FAB KP4/OT-CNB	c.Sep 60	c.Sep 60	On temporary loan from Belgium. Also serialled KAT-02 for a brief period? Scrapped 1976.
KFC8	C-47B	25756	43-48495, FAB KFC8/OT-CND	c.Sep 60	c.Sep 60	On temporary loan from Belgium. Possibly coded just K8 at this time. Also serialled KAT-03 for a brief period? Later to SU-AZO, F-ODNB and F-BJHC. Crashed 1981.
KAT-02	C-47B	32558	44-76226, RAF KN305, FAB K21/OT-CWJ	Sep 60	13 Sep 61	Interned at Elisabethville by United Nations. Officially to Congolese Government Feb 64 but not taken up. Scrapped.
KAT-03	C-47B	32557	44-76225, RAF KN304, OO-SMB, FAB K19/OT-CWI	Sep 60	13 Sep 61	Interned at Elisabethville by United Nations. Officially to Congolese Government Feb 64 but not taken up. Scrapped.
KAT-04	C-47B	26259	43-48998, RAF KJ966, HB-IRL	c.Feb 61	13 Sep 61	Used mainly as spare parts source. Interned at Elisabethville by United Nations. Officially to Congolese Government Feb 64 but not taken up. Scrapped.
KAT-40	Exec. DC-3	20455	43-15989, TC-ARA, N55U, HI-40	Sep 62	19 Feb 63	Named "Moineau Flyer II." Originally VIP interior, later cargo aircraft. Escaped to Angola; detained at Luanda by Portuguese. Scrapped.
KA-DFN	C-47A	12161	42-92368, RAF FZ606, SAAF 6826, ZS-DFN	29 Oct 61	6 Dec 61	Military operated despite civilian registration Destroyed at Kolwezi-Kengere by UN Canberras.
VP-YTT	C-47A	9628	42-23766, RAF FD906, SAAF 6802, ZS-DDV, G-AJXL, G-AMGD	c.Jan 62	c.Dec 62	Registered to Rhodesian Air Services. Used on intermittent basis. Later to ZS-EKK, 3D-AAV, ZS-IWL and ET-AIA. Derelict at Addis Ababa 2003.
VP-YUU	C-47B	25928	43-48667, RAF KJ897, G-AMKE	Oct 62	c.Dec 62	Registered to Rhodesian Air Services. Used on intermittent basis. Later to 9J-RDR. Remains in South Africa 2003.

[Editor: This list was inadvertently left out of Leif Hellström's article "The Douglas C-47 in Katangese Service" that appeared in SAFO #137 (July 2011). My apologies to the author and to the readers.]

The Korean People's Air Force

Part Two: How to Not to Win a War

Douglas C. Dildy

First You Invade a Neighboring Country...

In the early hours (0440hrs local) of a quiet Sunday morning – June 25th 1950 – beneath a slate-gray overcast and persistent rain the KPA surged across the 38th Parallel following a 30-minute barrage of artillery fire, ousting the forward elements of the ROK army (ROKA) out of their frontier fortifications. Each led by a battalion of 50 T-34-85 tanks, three KPA divisions engaged the hurriedly responding ROKA, pushed regiments of the 1st Division back about six miles (10km). A secondary thrust towards Chunchon in the central highlands initially made little progress. Beginning at 0520hrs, approximately 20 KPA navy junks and sampans – escorted by a half dozen motor gunboats and motor torpedo boats – landed two battalions of KPA marines on the east coast near Kannin, south of Kangnung, about 15 miles (24km) south of the 38th Parallel.

The morning's low clouds and light rain precluded early KPAF operations, but by 1315hrs the cloud deck began to break up allowing a reconnaissance patrol by two Yak-9Ps to roam as far south as Seoul. Spotting targets at Kimpo AB and Youi-do airport, at 1700hrs, six Yak-9Ps showed up. One pair of Yaks wrecked the control tower and set a fuel dump ablaze with their cannon fire as well as damaging a USAF Military Air Transport Service (MATS) C-54 (grounded due to a damaged wing) on the ramp at Kimpo. The other four Yaks strafed the ROKAF's ten L-4 and T-6 trainers at Youi-do, damaging seven of them (Note 1). Two hours later six Yak-9Ps returned, completing the destruction of the MATS C-54.

Based on reports that the KPA's T-34 tanks had penetrated as far south as Uijongbu, 17 miles (27km) north of Seoul, US Ambassador John J. Muccio ordered all American civilians evacuated, initially planning on using three merchant vessels in Inchon harbor. However, the next morning FEAF responded with transport aircraft to augment the merchantmen along with fighters to fly defensive cover for the evacuation. Transport, provided by a pair of C-54s and 11 C-47s (scraped together from various FEAF

base flights and other ancillary units), began evacuating personnel from Kimpo and Suwon AB (20mi/32km south of Seoul). For aerial cover, 18 F-82G Twin Mustangs [68th and 339th F(AW)Ss] gathered at Itazuke AB, Japan and began flying Combat Air Patrols (CAPs) in relays over Inchon, Seoul, and the road connecting them.

The KPAF spent the morning deploying their operational fighter squadron – ten Yak-9Ps, and a pair of Il-10s – forward to Sinmak airfield, to give their short-ranged interceptors a deeper reach into South Korean airspace and more combat time when engaged. The day's only encounter occurred early in the afternoon when two KPAF fighters flying over Seoul spotted a pair of the large, awkward Twin Mustangs [68th F(AW)S] and “bounced” them. Firing out of range, they failed to inflict any damage.

While some 905 people were being evacuated from Inchon aboard the freighters, the ROKA stiffened. The 2nd and 7th Divisions delayed KPA armor in a tough, day-long battle near Uijongbu. However, the ROKA units were spent and the next morning (June 27th) the North Koreans broke through. As the routed South Koreans streamed back towards the Han River, two KPA divisions and their tank brigade drove onto the heights overlooking Seoul. The ROK government abandoned their capital, moving to Taejon.

Ahead of the armored thrust flew two waves of KPAF warplanes. Arriving midday, the first wave consisted of a formation of five aircraft a two-seat Yak-11 trainer (probably being used as a reconnaissance aircraft) escorted by four Yak-9Ps. They headed for Seoul at 10,000ft (3,048m) (Note 2). On CAP over the Seoul-Kimpo-Inchon area were three formations of USAF Twin Mustangs. One flight of four [68th F(AW)S] orbited below a broken cloud deck at 4,000ft (1,220m) between Kimpo and Suwon, while another formation [339th F(AW)S] patrolled at 8,000ft (2,440m), and four more [4th F(AW)S] provided top cover above a solid overcast, at 12,000ft (3,680m). Once again the KPAF fighters initially had the advantage, jumping the lowest CAP. Attacking

shortly after noon, the Korean pilots managed to damage one of the big Twin Mustangs' tail before the Americans turned the tables on the Yaks. The Twin Mustangs downed two Yaks as they attempted to flee (Note 3). The mid-level CAP, hearing the radio calls from the low CAP, spotted the engagement through breaks in the clouds and dived into the mêlée, shooting down a third KPAF fighter.

At 1300hrs, eight KPAF Il-10s crossed Seoul winging southwest from Yonpo airfield to disrupt the aerial evacuation from Kimpo AB. By this time the Twin Mustangs had been replaced on CAP by four F-80C Shooting Stars (35th FBS/8th FBW) split into two pairs orbiting between cloud layers north of Seoul. The lead element (pair) spotted the KPAF raiders, cruising south above the lower cloud deck in a long, loose right echelon formation. The F-80C flight leader attacked and quickly shot down two *Shturmoviki* before the KPAF formation ducked into the clouds. The other pair of jets found the scattered survivors beneath the cloud deck, scurrying for home "at treetop height" and shot down two more in quick succession.

Seoul and Kimpo AB fell to the advancing KPA forces on June 28th – by then FEAF transports had rescued 851 people. The KPA then took the day to regroup before attempting to cross the Han River. FEAF transport operations were now centered on Suwon AB, with C-54 transports bringing in 150 tons of ammunition for the beleaguered ROK troops. Consequently Suwon AB became the next target of KPAF air attacks.

American defensive CAPs over Suwon proved insufficient and twice KPAF fighters evaded interception to strafe the airfield and do significant damage. The first attack occurred at 1330hrs when four Yak-9Ps caught an F-82G [68th F(AW)S] and B-26B [13th BS(L)] on the ground, severely damaging both with their cannon fire. Five hours later, six Yaks repeated the attack, one of them shooting up a C-54 (6th TCS/374th TCW) in the landing pattern and the others destroying another C-54 (22nd TCS/374th TCW) on the ground.

Encouraged by the lack of effective defense, the KPAF mounted six raids on Suwon the next day, June 29th. In one case, a formation of three Il-10s, escorted by six Yak-9P fighters, arrived between CAPs and made bombing attacks that wrecked the terminal building and destroyed a third C-54 (6th TCS/374th

TCW), killing 23 American servicemen. However, two flights of F-80Cs were "on station" when six more KPAF aircraft attempted to do the same. One flight (80th FBS/8th FBW) shot down an Il-10 while the other (9th FBS/49th FBW) claimed one fighter (as an "La-7"), one KPAF pilot bailing out to become a prisoner of war (POW). (Note 4)

The Shooting Star, however, was not proving to be the best air defense fighter for the Americans. Its Allison J33 turbojet engine's high fuel consumption limited its "on station" time and its high speed frequently resulted in "overshooting" their prop-driven targets. Two days earlier, FEAF had pulled ten F-51D Mustangs from "target-towing" duties to be provided to the now non-existent ROKAF. Four of these were commandeered by the 8th FBW (Note 5) to provide close escort for Gen. Douglas MacArthur's C-54 (nicknamed "*Bataan*") during his trip to Suwon to confer with the ROKA HQ.

The Mustangs were flying CAP over the school house where the conference was being held when four Il-10s appeared, headed for Suwon AB. The faster Mustangs quickly intercepted them and, because they were 80mph slower, the KPAF assault aircraft could not get away and eventually all four were shot down. Two KPAF crewmen bailed out, one of whom was killed on the ground. (Note 6)

Earlier that day (0800hrs) nine B-29As (19th BW) bombed Kimpo AB from 3,000ft (915m), attempting to deny its use to the KPAF. Three Yak-9Ps intercepted the four-engine bombers but failed to disrupt the attacks, which, from such low altitude, were reported to be "excellent". One Yak was claimed shot down, and a second one damaged, by B-29 gunners.

...And Have the USA Come to the Rescue

At the end of the day, just as the sun was setting in the west and the KPAF was "putting their planes to bed" at Pyongyang's Heijo airfield, 18 Douglas B-26 Invaders [3rd BW(L)] came roaring in at low altitude, dropping fragmentation bombs upon the ramp, hangars, and revetments, and strafing the parked warplanes wherever they found them. Five Yak fighters scrambled out to the runway; but only two took off. The other three were straddled by fragmentation bombs and shredded by shrapnel. Climbing rapidly, the remaining pair Yaks attacked the right wing of the Invader formation and were

driven off by defensive fire (one was claimed shot down by a B-26 gunner). The Americans got away without damage. Soviet sources report 19 KPAF warplanes were destroyed in this, the first USAF attack north of the 38th Parallel.

This American aerial counter-attack resulted directly from the KPAF's effective raids against Suwon earlier that day, prompting Gen. MacArthur to verbally authorize counter-air strikes north of the 38th Parallel. The following morning, he received permission from Washington to attack "air bases, depots, tank farms, troop columns, and other purely military targets" throughout the Korean Peninsula.

The forward-deployed squadron of Yak-9Ps was unaffected by this devastating attack and when the KPA resumed its offensive, pushing across the Han River on June 30th, they flew close air support (CAS) and provided protective air cover. Along the river, USAF F-80Cs were on CAP for the ROKA and two of them were "bounced" by a pair of Yak-9Ps. The Shooting Stars (36th FBS/8th FBW) accelerated out of range, wheeled around in a wide circle and came up behind the Yaks, shooting down both of them. While both KPAF pilots bailed out, one parachute failed to open. This small victory had no effect on the ground situation and that evening the Americans were forced to abandon Suwon AB, destroying the damaged aircraft left behind.

The next defensive line centered on Chonan, but the badly beaten ROKA's ability to halt the KPA now depended upon the introduction of American combat troops. US President Harry Truman approved the American escalation and, on July 1st, FEAF C-54 and C-47 transports (374th TCW) began ferrying the first elements of the US Army's 24th Division to Pusan. These elements consisted of the headquarters (HQ) and the two battalions of the 21st Infantry Regiment. One of these battalions ("Task Force Smith") hurriedly moved forward to engage the KPA at Osan (six miles/ten km south of Suwon).

As quickly as shipping permitted, the rest of the division arrived at Pusan by sea, to be followed by the 25th Infantry and 1st Cavalry Divisions. In putting soldiers on the ground to face the advancing North Koreans, the Americans made the single most significant investment – and the strongest political statement – possible in the defense of South Korea.

The next day, KPAF's Yonpo airfield near Hungnam on Korea's east coast was raided by

FEAF's Superfortresses (19th BW). Ten B-29s attacked, the bomber crews counted 16 aircraft on the field, but their 500lb (227kg) bombs fell wide and apparently no damage was done. To increase FEAF's bomber forces, the following day USAF's mighty Strategic Air Command (SAC) dispatched two additional B-29 wings (Fifteenth AF's 22nd and 92nd BWs) and assigned the commander of SAC's Fifteenth AF to take charge of FEAF's newly established Bomber Command (Provisional).

Simultaneously the US Navy's Task Force 77 (TF 77) arrived in the Yellow Sea. It consisted of a USN flotilla centered on the aircraft carrier USS *Valley Forge* (CV-45), and a Royal Navy (RN) flotilla built around the HMS *Triumph* (R16). Aboard the *Valley Forge* was Carrier Air Group (CAG) 5 – two squadrons of Grumman F9F Panther jets and three squadrons of propeller-driven Vought F4U Corsairs and Douglas AD Skyraiders. The *Triumph's* 13th Carrier Group operated Supermarine Seafire fighters and Fairey Firefly patrol and strike aircraft. (Note 7)

Early on July 3rd, two KPAF air bases were hit by the naval strike fighters. From *Triumph*, nine rocket-armed Fireflies (827 NAS), escorted by a dozen Seafires (800 NAS) (Note 8), attacked the Haeju airfield (another former IJAAF base) on the coast. No KPAF aircraft were present, but several buildings, including hangars, were hit. Pyongyang's Heijo air base was attacked by 12 Skyraiders (VF-55) and 16 Corsairs (VF-53 and 54) with eight F9Fs (VF-51) sweeping in ahead of the strike force. A number of Yak-9Ps were caught scrambling to get airborne; some taking off towards each other! One of these was quickly shot down, as was another that attempted to intervene. The rest scattered as the Panthers' strafing destroyed another three – and damaged ten more – aircraft on the ground. Finally, the F4Us and ADs arrived, bombing four hangars, other buildings and a nearby railroad yard.

Soviet sources state that by July 3rd the KPAF had lost 36 aircraft to enemy bombing attacks and in aerial combat, and that the KPAF assault aviation could "only carry out reconnaissance missions on behalf of the ground forces." Significantly, after this attack KPAF Il-10s were no longer seen over the battlefield.

Doug Dildy (SAFCH #844), USA.

End Notes

1. Apparently one of the eleven ROKAF trainers, probably T-6D #101, was absent that day. The rest of the ROKAF's initial inventory of aircraft was lost, either destroyed or abandoned to invading KPA forces, during the opening phase of the war.
2. Photographic evidence confirms that one of the aircraft in this formation was a Yak-11 trainer. Because this was a two-seater with an observer seen in the rear cockpit and the formation size (five) was so uncommon, it is most likely that this was a reconnaissance mission with the four fighters escorting the Yak-11.
3. One of the victims was the Yak-11, the pilot bailing out but the observer rode the stricken aircraft to his death. The pilot was killed on the ground near Kimpo AB in a shoot-out with ROKA troops.
4. According to DPRK propaganda, KPAF pilot Lee Don-Gyu and his wingman shot down two F-80Cs (reportedly from the 35th FBS/8th FBW), however, USAF records show that no F-80Cs were lost this day.
5. Because the 8th FBW had only recently (in late 1949) converted from the F-51D to the F-80C, many of its pilots were very experienced and still familiar with the Mustang. Also at Itazuke AB, Project "Bout One" had just been organized on June 27th, using the ten F-51Ds to train and equip the first ROKAF fighter squadron. Because MacArthur's C-54 needed the best escort possible, in addition to jet-powered F-80Cs sweeping the flight path ahead of the four-engine transport, the Mustangs were added to provide close (and near co-speed) escort.
6. Official USAF victory credits list one La-7 and three Il-10s falling in this engagement. However, Dr. Robert F. Futrell's meticulously researched and very detailed (revised in 1983) official USAF history describes the KPAF aircraft as "Yaks". Futrell's source for this is the official history of 8th FBG, May-June 1950, pp. 7-9, and a taped interview with Lt. Col. John McGinn, who witnessed the air battle from the ground. This author is attempting to obtain and examine the former to verify the type of KPAF aircraft involved in the battle.
7. USN's CAG 5 consisted of VF-51 and -52 flying Panthers, VF-53 and -54 flying Corsairs and VA-55 with Skyraiders. The RN/FAA's 13th CAG consisted of NAS 800 flying Fireflies and NAS 827 with Seafires.
8. These are the numbers provided by the RN's official history, reportedly from the HMS *Triumph's* logbook. Unaccountably, these numbers have been reversed in all American accounts of this operation.

Sources

In addition to those sources listed in SAFO #136, this part relied on information found in the following books, articles, and archive documents.

1. Air Combat Information Group (ACIG) Team, "Far East Air-to-Air Victories during the Korean War, 1950-1953", as posted on http://www.acig.org/artman/publish/article_311.shtml, updated 30 August 2004.
2. Cull, Brian, and Dennis Newton, *With the Yanks in Korea, Volume One* (London: Grub Street, 2000).
3. Davis, Larry, *Air War Over Korea: A Pictorial Record*, (Carrollton, TX: Squadron/Signal Publications, 1982).
4. Dorr, Robert F., *Osprey Combat Aircraft 42: B-29 Superfortress Units of the Korean War Aces*, (Oxford, UK: Osprey Publishing Limited, 2003).
5. Dorr, Robert F., Jon Lake and Warren Thompson, *Osprey Aircraft of the Aces 4: Korean War Aces*, (Oxford, UK: Osprey Publishing Limited, 1995).
6. Hallion, Richard P., *The Naval Air War in Korea*, (Baltimore: The Nautical & Aviation Publishing Company of America, 1986).
7. Hastings, Max, *The Korean War* (NY: Simon and Schuster, 1987).
8. Horne, John E., "Douglas B-26s in Korea", *Air Enthusiast*, No. 24, April-July 1984.
9. Jackson, Robert, *Air War over Korea*, (New York: Charles Scribner's Sons, 1973).
10. "Korean War Aircraft Loss Database (KORWALD): Date of Aircraft Loss Report," (Washington, DC: Defense Prisoner of War/Missing Personnel Office) as posted on Department of Defense, Defense Technical Information Center website: http://www.dtic.mil/dpmo/korea/reports/air/korwald_date.htm
11. Odgers, George, *Across the Parallel: The Australian 77th Squadron with the United States Air Force in the Korean War* (Melbourne, Australia: William Heinemann Ltd., 1952).
12. Paul, James, and Martin Spirit, "HMS Triumph: Tour 25/6/1950—29/9/1950", as posted on website: <http://www.britains-smallwars.com/carriers/Triumph.html#tour>, 2008.
13. Thompson, Warren, "F-82: Killers over Korea", *Air Enthusiast*, No. 6, March-June 1978.
14. Thompson, Warren, "Fighter Combat over Korea, Part 1: First Kills", *Wings of Fame*, Vol. 1, 1995, pp 4-33.
15. Thompson, Warren, "Mustangs in Korea", *Air Enthusiast*, No. 15, April-July 1981.
16. Thompson, Warren, *Osprey Frontline Colour 1: F-51 Mustang Units Over Korea*, (Oxford, UK: Osprey Publishing Limited, 1999).
17. Thompson, Warren, *Osprey Frontline Colour 5: F-80 Shooting Star Units Over Korea*, (Oxford, UK: Osprey Publishing Limited, 2001).
18. Thompson, Warren, "The (Shooting) Stars of Korea", *Air Enthusiast*, No. 21, April-July 1983.
19. Thompson, Warren, "Shooting Stars over Korea", *Air Power*, March 1985, Vol 15, No. 2.
20. Wurster, Charles, "1Lt Charles A. Wurster, Pilot, 36th Tactical Fighter Bomber Squadron, Combat Operations in Korea, 1950", unpublished manuscript provided by Mr. Warren E. Thompson.
21. Y'blood, William T., *MiG Alley : The Fight For Air Superiority*, (Washington, DC: Office of Air Force History, 2000).

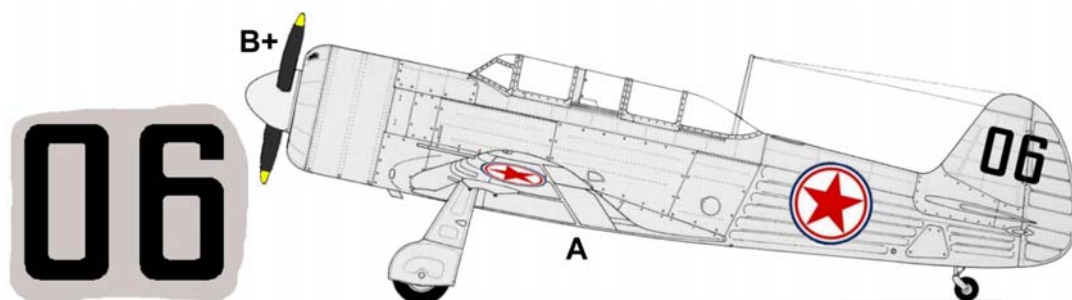
AIRCRAFT OF THE KOREAN PEOPLE'S AIR FORCE

By Frans Scheve, SAFCH #890

1ST Aviation Division

1st Training Aviation Regiment

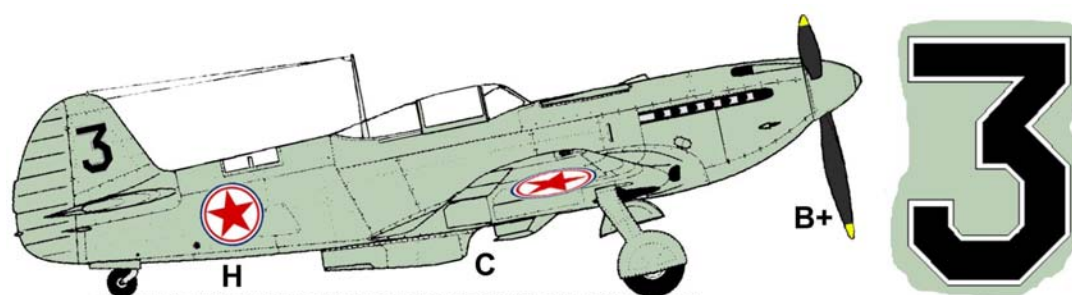
Yakovlev Yak-11 "Black 06"



The KPAF received approximately 20 Yak-11 advanced trainers from the USSR in 1949-50. "Black 06" (sometimes reported as "C6") was flown on what appeared to be a reconnaissance mission over Seoul on 27 June 1950 and was shot down by a USAF F-82 Twin Mustang.
SOURCE: Official USAF Photo 070706-F-123P-001

56th Fighter Aviation Regiment

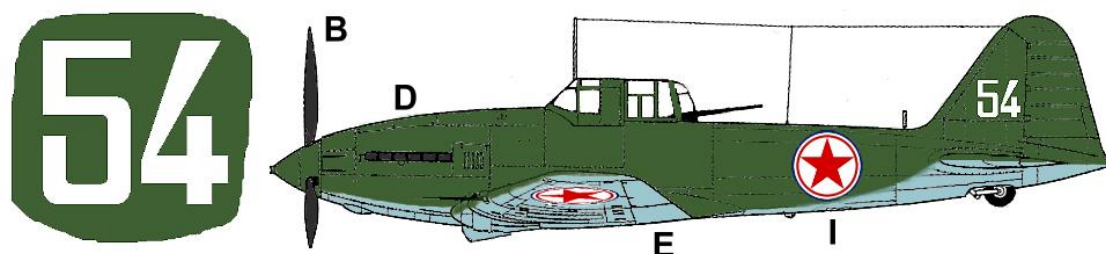
Yakovlev Yak-9P "Black 3"



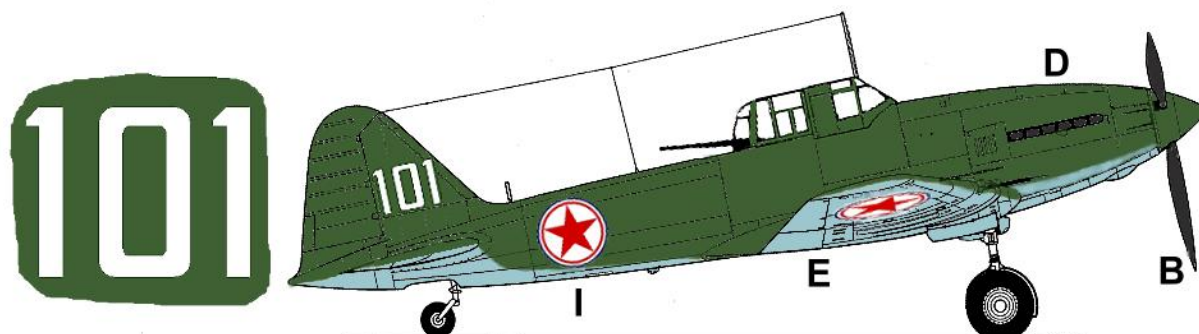
The 56th FAR was the KPAF's sole fighter unit, equipped with 44 Yak-9Ps, but only had ten qualified pilots – enough for just one operational squadron. "Black 3" was lost to USAF fighters during the first week of the war. See accompanying Photo #3.
SOURCE: *Air Power History* magazine, Spring 1997, page 38.

57th Assault Aviation Regiment, Heijo Sqn

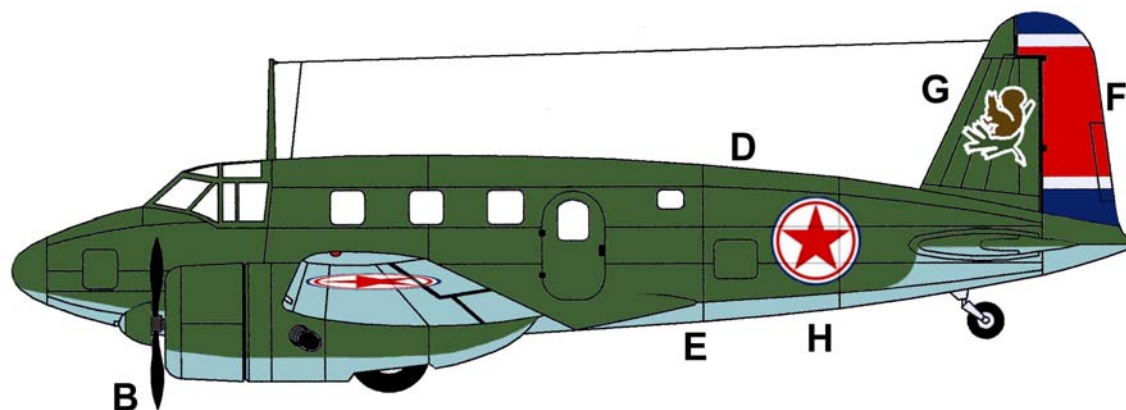
Ilyushin Il-10 "White 54"



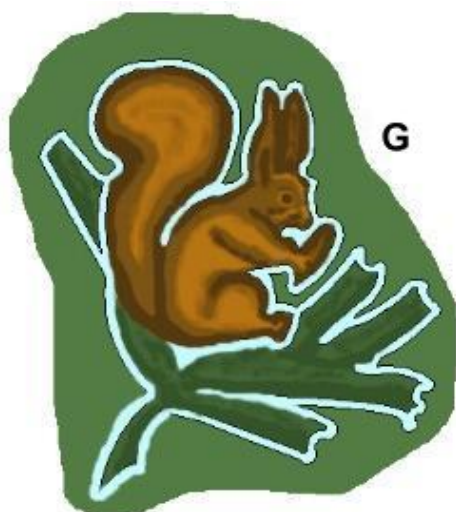
The 57th AAR was the KPAF's ground attack unit, equipped with 44 Il-10 *Shturmoviks*. However, the unit had only 22 pilots and 17 rear gunners – enough for two operational squadrons. One was originally based at Heijo airfield and later deployed to Kimpo AB, where "White 54" was destroyed by USAF attacks. SOURCE: Bill Williams Photo from the Warren Thompson Collection.



The 57th AAR's second squadron was initially deployed to Yonpo airfield to support the army's advance through the central highlands. "White 101" was damaged by USAF attacks and abandoned there after UN counter-offensive in late 1950. SOURCE: *Air Power History* magazine, Summer 2000, page 16.



The KPAF's initial inventory included a handful of former IJAAF aircraft abandoned at the end of WW2. These included at least one Ki-54c eight-passenger transport, discovered at Pyongyang airfield. The origin of the tail decoration is unknown. See Photos #15 and #16.
SOURCE: James E. Tidwell Photo from the Warren Thompson Collection.



Explanation of notes on the drawings

- A- Light gray camouflage overall, color similar to Humbrol Hu-40 or 183
 - B- Black propeller (with yellow tip B+)
 - C- Light sky-gray camouflage overall, similar to Hu-115 + 23
 - D- Russian Green topside camouflage, similar to Hu-114 or 117
 - E- Russian Light Blue underside camo, similar to Hu-65 or 115 + 34
 - F- Tail rudder painted blue-white-red
 - G- Tail decoration, squirrel on a branch, colors: dark green and hues of brown
 - H- National insignia on Yak-9P, Ki54c
 - I- National insignia used on Il-10
- All national insignia in 4 positions.

Captions for Photos on Pages 53-56

Yak-9P (page 53)

1. KPAF Yak-9P “02” being readied for a mission. The USSR provided 79 of these post-WWII interceptors to the fledgling KPAF. Note pilot standing on the wing with his seat parachute hanging from its straps, and Yak-9P “32” in the background. (Yefim Gordon via author)
2. KPAF’s first Yak-9P “3” following a crash landing. While this unfortunate fate may have been due to USAF fighters, it is more likely a landing accident where the inexperienced KPAF pilot forgot to lower the landing gear. (Note the absence of any damage from .50cal machine gun bullets.) (Yefim Gordon via author)
3. The wreckage of another KPAF Yak-9P “3” following an encounter with USAF fighters – date, time and location unknown. A score of the KPAF’s Yak-9s were lost in air combat with USAF fighters. KPAF Yak-9Ps are known to have shot down four USAF aircraft, including one F-80C and a B-29, and damaged three more so severely they were written off on the ground. (Official USAF Photograph)
4. In the first decisive air-to-air engagement over Korea four Yak-9Ps and a Yak-11 trainer (probably being used as a reconnaissance aircraft) attacked a formation of USAF F-82s Twin Mustangs near Seoul. Poor gunnery saved the Americans, who quickly turned the tables and shot down two Yak-9Ps and this Yak-11. This poor but historically significant photo was taken by Lt William Hudson’s radar operator Lt Carl Fraser with a hand-held camera. (Official USAF Photograph)

Ilyushin Il-10 Shturmovik (Page 54)

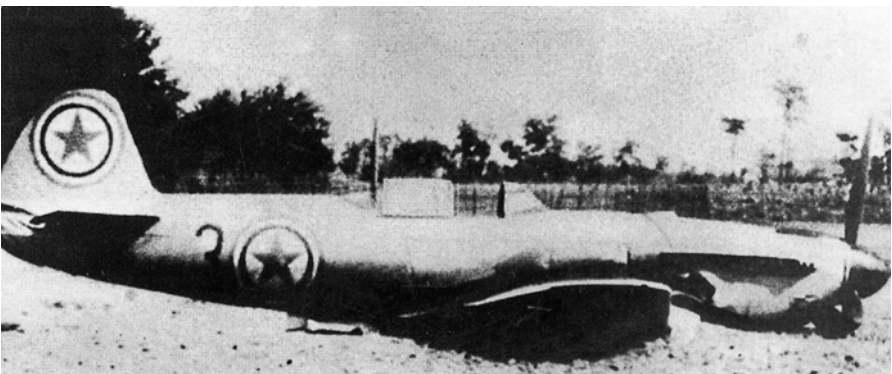
5. A KPAF Il-10 *Shturmovik* ready to fly. The Soviets provided 93 of these late-WWII “assault” aircraft to the fledgling KPAF. Due to USAF air supremacy in the skies over Korea only 20 survived the first two months of combat operations, these escaping to China. (Robert F. Dorr Collection)
6. When the score of surviving *Shturmoviki* were evacuated to China, two-to-four examples remained at Kimpo AB. These flew four sorties against USN and RN warships following the UN amphibious landings at Inchon in mid-September. One of those – “White 44” – was eventually captured, resting amid the rubble of Kimpo’s main hangar. (U.S. National Archive and Records Administration)
7. Another one of the operational Il-10s captured at Kimpo AB was “White 55”, complete with its Berezin UBST 12.7mm heavy machine gun mounted in the rear cockpit. Note that the white tail number and background to the national emblem have weathered to a pale gray color. (Official US Navy Photograph)
8. The two captured Il-10s – “White 44” and “White 55” – were carefully disassembled and sealed for loading aboard ship for the long voyage to the USA. (US National Archive and Research Agency Photograph)

Republic of Korea Air Force (ROKAF) aircraft (Page 55)

9. Originally the ROKAF purchased ten NAA T-6Ds from Canada, but apparently only three of them had been delivered before the North Korean invasion began. Two of these were destroyed by KPAF Yak-9Ps strafing at Seoul’s Youi-do airfield. Apparently the survivor was “101”, seen here (with USAF T-6G “Mosquitos”) at Taegu AB later in 1950. (Official USAF Photograph)
10. The remaining seven Texans were apparently delivered after the invasion began. Here “107” and “108” are seen at Taegu AB, with a USAF SB-17 in the background. (Dan Hagedorn Collection)
11. To resurrect the South Korean air force the FEAF pulled ten F-51Ds from target-towing duties and under a program called “Bout One” began training ROKAF pilots at Itazuki AB, Japan. Led by Major Dean Hess, the ROKAF 1st Fighter Squadron deployed to Taegu AB on 30 June 1950 and began flying ground attack sorties in support of the beleaguered defenders of the Pusan Perimeter. Col Hess’s Mustang – with the motto “By Faith I Fly!” emblazoned upon the nose – sits ready to mount yet another mission. (Official USAF Photograph)
12. After the senior ROKAF officer was killed in the crash of his Mustang, the 1st Fighter Squadron’s combat missions were flown almost exclusively by Major Hess and the nine American instructor pilots, at least until the ROKAF pilots obtained more operational experience. (U.S. DoD Defense Visual Information Center Photograph)

Former Japanese Army Aircraft in Korean Service (Page 56)

13. The ROKAF employed at least one former IJAAF Tachikawa Ki.9 “Spruce” training biplane, seen here at Taegu AB. (Australian War Memorial Photograph)
14. The KPAF also acquired a few left-over IJAAF aircraft, in this case a Tachikawa Ki.55 “Ida” was used as a trainer at Pyongyang. (Australian War Memorial Photograph)
15. The KPAF also had a former IJAAF Tachikawa Ki.54c “Hickory” twin-engine light transport based at Pyongyang, seen here after the North Korean capital and the KPAF’s main operating base was overrun in the UN’s counter-invasion. (James E. Tidwell via the Warren Thompson Collection)
16. The KPAF’s “Hickory” apparently retained its original IJAAF tail emblem – a squirrel holding a nut while standing on a tree branch, possibly the insignia of the IJAAF depot at Wonsan airfield. Note the faded KPAF rudder stripes: narrow blue-thin white-broad red-thin white-narrow blue. (James E. Tidwell via the Warren Thompson Collection)



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16,



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15.

The Luxembourg Light Army Aviation Section: 1957-1967

[Editor's note: The following article was put together from a variety of sources. The initial stimulus was a translation of an article from an unknown publication sent to me years ago by a member whose name I have lost. This has been supplemented by information and photos provided to Greg Kozak (SAFCH #1599) by his Belgian friend, Etienne Kervyn. Additional information was obtained from John Cochrane (SAFCH #905).]

One of Europe's smaller nations, the Grand Duchy of Luxembourg gained independence from the German Confederation in 1867, and although economically united with Belgium since 1921, has continued to provide for its own defense. The Luxembourg Light Army-Aviation Section (Section d'Aviation Legere LU) was created in 1957 and integrated into the Luxembourg Army.

The Luxemburg army received three Piper L-18C from the USA under MDAP (Mutual Defense Assistance Program). These aircraft were based at Luxembourg-Findel airport. The registrations of the aircraft were: LX-FAA in service from March 29 1957; LX-FAB in service from March 13 1958; and LX-FAC in service from March 13 1958.

Model	C/n	Ex-USAF	Registration
L-18C	18-3236	53-4836	LX-FAA
L-18-95	18-2138	52-2538	LX-FAB
L-18-95	18-2132	52-2532	LX-FAC

LX = Luxembourg; FA = Force Armée (Armed Forces); and A, B, C = denoted individual aircraft. (Note 1)

Their basic tasks were: (1) observation and mail flights within the GTR (Groupement Tactique Régimentaire) and (2) observation flights and artillery fire directing missions within the Luxembourg Artillery Battalion (NATO contribution) which was attached to the 8th Infantry Division located at Baumholder, Germany.

On 9 July 1964, during an exercise at the Luxembourg military practice area in Elsenbord, Belgium, LX-FAB collided with a wire cable and was destroyed. The personnel suffered only minor injuries.

After the reorganization of the army in 1967, the two remaining machines LX-FAA and LX-FAC were declared excess property on March 1 1968 and auctioned off by the "USAF - Marketing Centre"

located at Mainz, Germany. No replacements were been obtained.

On July 16 1968, both planes were purchased by Aero-Sport du Grand-Duché de Luxembourg and were based at Luxembourg-Findel airport were LX-FAA was destroyed during a bad landing on July 6 1972.

[Editor's note: At the time of the writing of the original document, LX-FAC still belonged to Aero-Sport du Grand-Duché de Luxembourg and found its final destination in an aircraft-hangar at Findel.]

Camouflage and Markings

[Editor's note: The following information was extracted from an extensive document of unknown origin titled *Section d'Aviation Legere LU* supplied by Greg Kozak.]

1957 to 1964/65

Originally the aircraft was olive drab, but was subsequently over-painted with dark green and tan (medium brown?) camouflage. On the vertical fin, was the national flag of Luxembourg. (Note 2) Above was the registration number in white about 15cm high.

The air force roundel, a red lion wearing a gold crown on a white background surrounded by a blue circle, was on both sides of the fuselage. The red lion always faced forward. However, some photos show the right side of LX-FAC with the red lion facing the back of the plane (probably due to an error by the painter).



The roundel was on both sides of the upper surface of the wing with the registration number inside of the roundel on the left wing. (Note 3)

On both sides, between the motor-hood and the door, the name of the unit that the plane was attached was stenciled in small letters about 3cm high in black.

1964/65 to 1967

The camouflage painting did not change. On the vertical fin, the rectangle showing the flag was replaced by another rectangle showing now colors applied diagonally and as follows: blue - white - red - white - blue.

The national registration number disappeared from the fin. Now, the registration number appeared on both sides of the fuselage behind the air-force roundel in yellow and about 50cm high with the LX-leading on both sides.

On both sides of LX-FAA, between the motorhood and the door, the insignia of the 8th US Infantry Division was applied replacing the unit markings. Some photos of LX-FAC, dated 1966, show that the old marking had not yet changed. The “glitch” with the red lion facing the back of the plane was not corrected, perhaps due to the fact that LX-FAC was placed in reserve. (Note 4)

See photos on page 59

Notes

1. The table is from *Belgian Military Aviation 1945-9177*, by Paul A. Jackson. Midland Counties Publications (1977).
2. Initially the fin marking was a white square with three diagonal lines, blue, red and blue. This was later changed to the Luxemburg national flag. Correspondence with John Cochrane (2011).]
3. Interpretation of the photographs also leads to the belief that the roundel was applied to the lower surface of the right wing only, with the registration number alone on the lower left wing. Correspondence with Greg Kozak (2011).
4. From the photos, it appears that there were two variations of fin flash. The first was the Luxembourg national flag. The second a rectangle with blue-white-red-white-blue sections arranged diagonally. Correspondence with Greg Kozak (2011).





Bell 230 of the Aviacion Naval Ecuatoriana

Jorge Delgado

During 1989, the Bell company announced its intention to develop an improved variant of its Bell 222 powered by two 700 shp Allison 250-C30-G2 turbines driving an advanced-design two-blade rotor. The Model 230 with the internal fuel capacity increased to 930 litres or to 1359 litres with optional fuel tanks. Two Bell 222s were converted to military configuration. The demonstrator (N230CN) was leased for six months to the Chilean Navy during 1993-94. It was equipped for shipboard evaluation with Indal ASIST deck recovery system, auxiliary Starburst searchlight, and updated flight equipment. During its stay in Chile, it was given the number 49.

After the tests with the Chilean navy, Bell 230 (N230CN) was on its way to Canada in 1995, when it stopped at Ecuador's naval aviation base at Guayaquil. While making demonstrations similar to the ones in Chile, a conflict with Peru erupted over the contested border of Twinza in the Amazon forest. The Bell remained in Ecuador until the confrontation ended.

The Ecuadorian Navy decided to purchase two Bell 230. They were Bell construction numbers 23008 and 23029, and when delivered in 1998, they were

given the Ecuadorian Navy designations HN-401 and HN-403 respectively.

On 19 October 2009, HN-403, piloted by naval aviators Juan Gerrero Gonzales and Juan C. Palacios Donoso, was engaged in night-time exercises with an Ecuadorian task force 20 miles off the coast of "Punta Gorda" in the province of Esmeraldas near the border with Colombia. They were operating from the frigate BAE 02 "Presidente Alfaro". At 0247 hours, HN-403 was forced to make an emergency water landing under conditions of strong winds and rough seas. The "Presidente Alfaro" picked up the crew. The helicopter was still floating thanks to its emergency floats, and the ship's crew lifted it onto the flight platform of the frigate.

The exercises were suspended and ships headed back to the port city of Esmeraldas, the headquarters of the "Commando de Operaciones Norte", to deliver the pilots and HN-403.

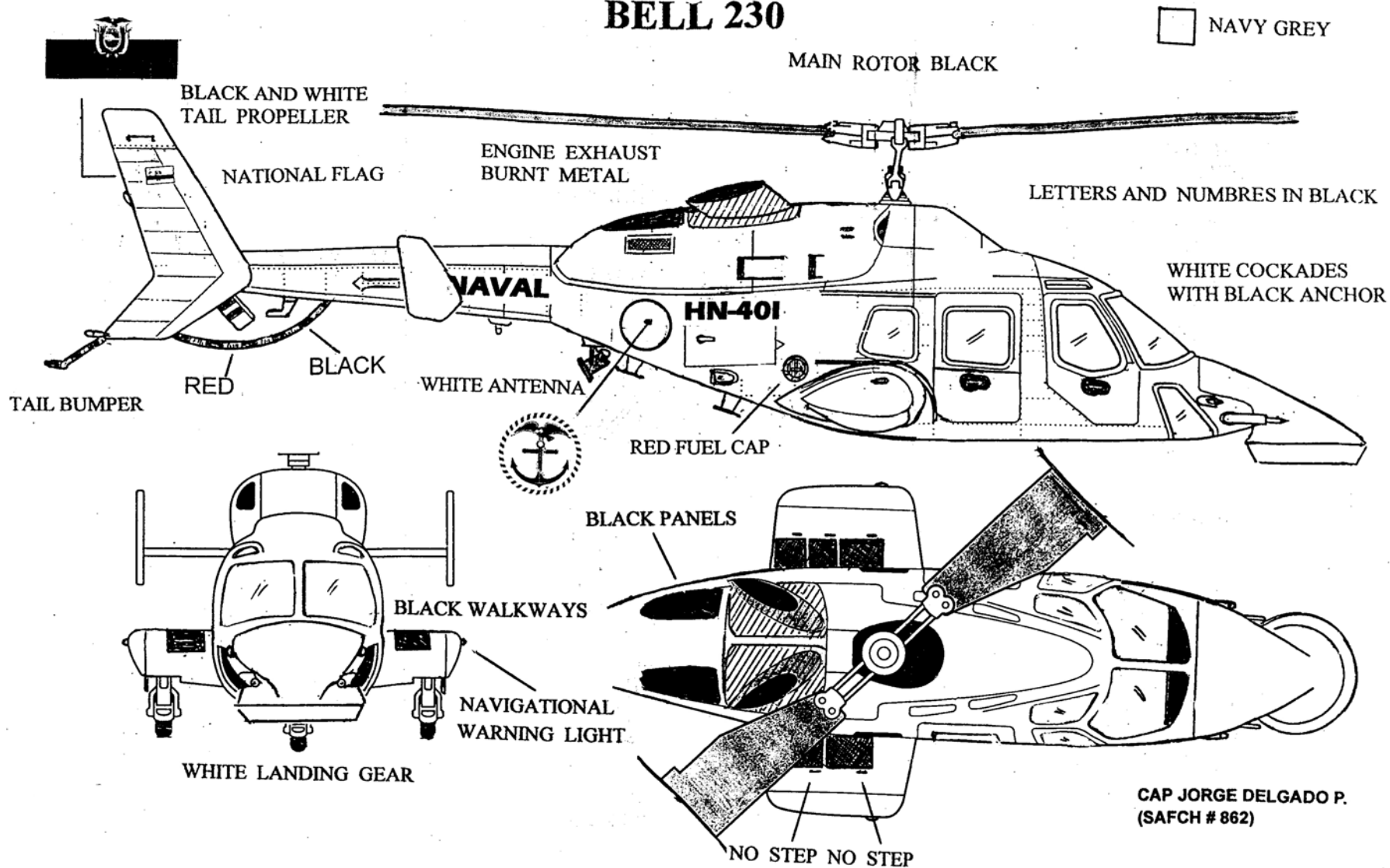
The remaining Bell 230, HN-401, continue flying missions together with two Bell 430 that were purchased to replace the lost HN-403.

Jorge Delgado (SAFCH #862), Ecuador



Bell 230 AN-403 during an Open House put on by the Ecuadorian Air Force in 2010. This event was held at their home base in Guayaquil to celebrate the Air Force's anniversary.

AVIACION NAVAL ECUATORIANA BELL 230



The SAAB S 29C in UN Service in the Congo

Leif Hellström

The fighter units of the United Nations Air Division in the Congo operated a variety of aircraft types during the 1961 to 1963 period. All were armed except for the two dedicated S 29 reconnaissance aircraft provided by Sweden in 1962.

The fighting between ONUC (the UN force in the Congo) and Katanga in 1961 had clearly shown that an air recce capacity would be very useful but despite this ONUC continued to have to make do with photos snapped from C-47s with normal hand-held cameras. Small cameras could also be fitted to the Canberras used by ONUC. In both cases, the photo quality and resolution left much to be desired. The first serious discussions concerning a dedicated ONUC recce unit dated from February 1962 and the following month the commander of the ONUC Military Information unit proposed setting up a reconnaissance unit with two C-47s and either two SAAB S 29Cs or two Canberras photo-recce aircraft. It was suggested that this unit would be based at Kamina air base, which also housed most of the ONUC fighter force, but would come directly under Fighter Operations at the ONUC HQ in the capital Leopoldville. The unit would have integrated photo processing and interpretation resources, sufficient for two missions per day.

No immediate decisions were taken and in late March the new ONUC Air Commander, Norwegian Air Commander Jon Ryg, instead suggested obtaining four Lockheed RT-33s for recce duties. But UN headquarters in New York preferred to standardize on the SAAB 29 instead, which was already in use in the Congo in the J 29B fighter version. New York suggested that four S 29C reconnaissance aircraft should be obtained. An inventory by the Swedish Air Force (RSwAF) showed that all its 60 S 29Cs were in fact allocated to the recce squadrons to be set up in case of mobilization, but despite this it was agreed that two aircraft could be spared, if needed.

One problem was that the S 29, unlike the J 29, did not have a radio compass but instead carried a receiver for the PN-50/A radar navigation system, which would be useless in the Congo. It was therefore suggested that the S 29 should always fly its missions together with a J 29.

An UN inquiry about the possibility of obtaining S 29s did not reach Sweden until late July 1962 and in early August it was confirmed that these could be provided. Both aircraft would be configured for high-altitude photo recce and in addition one set of low-altitude cameras would also be provided. The RSwAF also agreed to send equipment and personnel for film processing and photo interpretation. Due to the limited navigation capability of the S 29s outside Sweden, it was decided that they would be dismantled and transported to the Congo as air cargo rather than fly down on their own. By this time it was clear that the S 29s would be operated by the Swedish F 22 fighter unit already in the Congo, rather than by a separate unit. Rather than allocating special reconnaissance pilots it was decided to give three of the J 29 fighter pilots some basic recce training and this was done in Sweden in August 1962. The objective of the course was clearly stated to be limited to "teaching them to use the cameras so that usable pictures are obtained."

The official UN request for two S 29Cs was finally issued by New York on 20 September 1962 and was approved by the Swedish government after a few days. After preparation and dismantling they were transported by USAF C-133s to the N'Djili airport in Leopoldville where the first one arrived on 20 October and the second one a couple of days later. Assembly and test flying took nearly three weeks but on 10 November the two S 29Cs were flown over to F 22 at Kamina, accompanied by a Canberra to help with the navigation.

The S 29s were enthusiastically received and flew their first two missions the following day already, against Kongolo, with good results. For the time being each S 29 was accompanied by a J 29, for navigation support and protection. Over the next weeks, ONUC built up a comprehensive photo library of Katanga's airfields. A couple of airfields in neighbouring Congo-Brazzaville and Angola, suspected of harbouring Katangan aircraft, were also overflown "by accident." The initial missions were all flown at high altitude but on 19 November, Åke Christiansson flew a first low-altitude mission against Katanga's main air base at Kolwezi, making a pass

down its runway at 15-20 meters' altitude, doing 900 km/h.

A Swedish photo intelligence platoon under command of W/O Carl-Gustaf Wesslén arrived at the same time as the S 29s. This consisted of photo interpreters, film copying personnel and camera technicians. They were housed in a villa at Kamina air base where they often had to work at night because of the day-time heat. They also had to put ice cubes in the developer to keep the temperature of the fluid down!

On 28 December, the S 29s made a final recce against the Katangese before the air attacks due to be made the following day, and fresh photos were taken of Kolwezi and Kipushi airfields. By this time, a very detailed photo coverage of each airfield was available, showing not only the field itself and revetments but also of suspected dispersal sites in the vicinity. A dedicated recce pilot, Jan Norlund from the F 11 Wing, had arrived on 19 December and from then on he flew most of reconnaissance missions in the S 29.

Minutes after the air strike on Kolwezi by the UN J 29s on 29 December 1962, Norlund made a damage assessment run in an S 29, photographing the airfield from low level. He flew the entire mission at low level, below 20 meters, and part of it was even made below ground level, along a river bed. Norlund initially flew some missions with a J 29B as escort, as per the previously agreed procedure, but soon requested to fly on his own, which was the normal way for photo recce aircraft in the RSwAF. He flew missions against Kolwezi on four occasions, always at 30 meters or lower. During one of these missions, on 30 December, the aircraft was hit by ground fire and a bullet hit one of the cameras, which was destroyed.

The Katangan secession ended in mid January 1963 and after that things quieted down considerably. There had been talk of arranging for two additional S 29Cs to be flown down to the Congo, to assist in the surveys needed to plan the rebuilding of the Congo infrastructure, but this proposal was not progressed with. Instead the UN asked Sweden to reduce F 22 to J 29s only by 15 April, without giving any explanation why the reconnaissance aircraft were no longer considered necessary.

The two S 29Cs left Kamina for Leopoldville on 16 April, together with two J 29Bs as escorts. Four

days later they departed the Congo and were flown back to Sweden along the west coast of Africa, staging through Cameroon, Nigeria, Liberia, Senegal, Mauretania, the Canary Islands, Morocco, Spain, Italy and Germany, arriving at Ängelholm in Sweden on 27 April. The total flying time had been around 22 hours and the distance 13,000 km. After returning home, the S 29s returned to RSwAF service for a few more years before being retired and scrapped.

Painting and Markings

On arrival, the two S 29Cs were overall natural metal. They had a pale yellow ring around the nose (actually fibreglass and part of the nose mounted radar antenna) and a black air intake lip. The national insignia were replaced by white squares with "UN" in black letters in six positions. Those above the wings were positioned inboard of the wing fence, while those under the wings were outside the wing fence. The unit number "22" and aircraft serial were black. The letters "A" and "B" were painted on the fin, in white with a thin black outline. Full Swedish stencils were carried.

Immediately after arrival at Kamina air base, the aircraft were camouflage painted. The colours were matt or semi-matt and were mixed locally. Judging from photos, they approximated Dark Green (roughly FS 34095) and Olive Drab (about FS 34088), with stripes in Orange-brown (something like FS 30252). The camouflage was sprayed with a slightly soft edge on the upper surfaces after all markings had been masked off, leaving sharp-edged natural metal areas around the unit number and most stencilling. The undersides of the wings and tailplane, as well as the very bottom part of the fuselage, were left natural metal. The drop tanks were also painted although "White A" was often seen with unpainted tanks.

Modelling the UN S 29C

The only available kit of the S 29C (apart from some very obscure short-run kits) is the old Heller kit in 1/72, later re-issued by Airfix, which is generally accurate even if a bit simple by today's standards. The original Heller issue (but not the Airfix one) also contains decals for a UN example. While not spot-on, these decals are not too bad.

Leif Hellström (SAFCH #786), Tullinge, Sweden, e-mail: leif@leifhellstrom.com

UN SAAB S 29Cs

Code	C/n	Previous ID	Served from	Served to	Remarks
White A	29.944	RSwAF 29944	10 Nov 62 20	Apr 63	Flown back to Sweden. To RSwAF 29944. SOC Feb 67 and scrapped.
White B	29.906	RSwAF 29906	10 Nov 62 20	Apr 63	Flown back to Sweden. To RSwAF 29906. SOC Nov 70 and scrapped.



“White A” seen in connection with the delivery flight to Kamina on 10 November 1962, still in natural metal finish. The aircraft is being refuelled from a home-made tanker, using a Swedish pump trolley. (Gilbert Casselsjö)



“White B” in full camouflage, at Kamina in early 1963. Note the unpainted areas: around unit number, serial and stencilling; around the jet exhaust; the tail warning radar and the bottom of the fuselage. (Sven Andersson)



Another view of “White B,” showing the right-hand side. Note the pale yellow nose ring and the position of the “UN” marking under the wing. (José de Smet)



The only known view from above of either of the S 29Cs in camouflage, snapped from high altitude over the bush by its sister aircraft. It most likely depicts “White B” and clearly shows the position of the “UN” markings (note slight angle) as well as some details of the camouflage pattern. (F 22)

The Torpedo of Vladimir Michailovich Olkchovsky

Rudolf Höfling

Starting in 1916, the 5th Aircraft Depot of the Imperial Russian Flying Corps in Brjansk, under the command of Kapitan (Captain) Vladimir Michailovich Olkchovsky, modified licence-built French aeroplane types such as the Morane-Saulniers, Nieuports, and Voisins for the Russian air service.

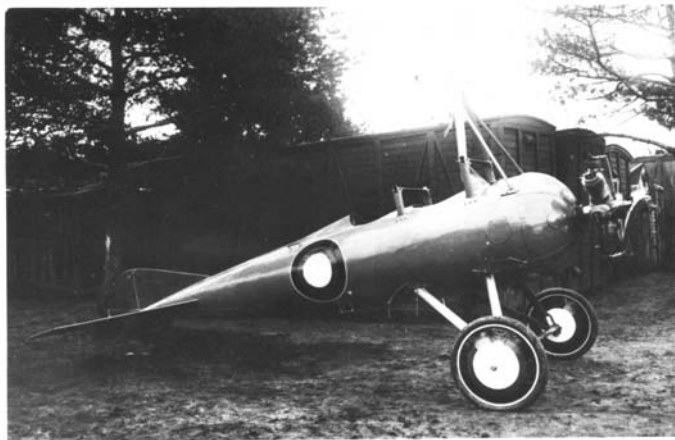
During these years Capt. Olkchovsky also developed his own two-seated fighter and reconnaissance aircraft, called Torpedo. Powered by a 110 hp Le Rhone rotary engine, the Torpedo was flight tested in February/March 1917 and it was

reported that the aeroplane had good flight characteristics. However, this advantage was negated by the poor performance of its two-part parasol wing. Therefore, serial production of this aeroplane was not attempted and the single copy of this aircraft was handed over to a flying school in Odessa.

After the end of World War I, in the years 1923 to 1929, the ambitious Vladimir M. Olkchovsky worked again in the aircraft industry as an assistant to the famous aircraft constructor, Nikolai Nikolayevich Polikarpov.



Based on a Morane-Saulnier type, the Torpedo monoplane was developed in 1916/17 by Capt. Vladimir M. Olkchovsky.



The Olkchovsky Torpedo was powered by a 110 hp Le Rhone rotation engine.



The parasol wing of the Olkchovsky monoplane had such negative effects on its flying characteristics that no serial production was undertaken.



Dagger, Finger & Mara, by Jorge F. Núñez Padín, Juan C. Cicales & Santiago Rivas. Serie Fuerza Aérea #19. Published by Jorge Félix Núñez Padín, E-mail: jfnpadin@yahoo.com.

SAFCH member Jorge continues to improve each new issue of his series on Argentine aircraft. This latest edition retains the landscape format of its immediate predecessors, but increases the number of pages devoted to color profile drawings to 8 (20 profiles plus a top and bottom plan view of a Dagger in Malvinas Conflict identification markings) and the number of pages of color photos to 9 (36 photos). The Kodak quality of these glossy pages is almost sensual – something that no e-book can imitate. The quality of the glossy pages with text and b&w photos is almost as good.

Argentine's Fuerza Aérea received 39 Daggers (C-401 to C-439), Mirage 5P (C-604 to C-636). A number of these were converted to "Finger" and "Mara" variants, but the exterior modifications were minimal and drawings are included to show these differences (These modifications can be easily performed by a modeler with bit of experience).

The content follows the usual Serie's format: Historia (10 pages, 20 b&w photos); Malvinas (16 pages, 32 b&w photos); Tecnica (5 pages, 8 b&w photos, and 3 tables of specifications); Identidades (7 pages, 23 b&w photos); and Colores & Insignias (2 pages, 3 b&w photos).

The text is entirely in Spanish, but as the following excerpt illustrates, the reader with a minimum facility in the Spanish language can gather much information. "C-404 Dagger (msn S-12): Construido el 23.03.72 como Nesher. Arribó el 26.11.78, a cargo inicialmente del Grupo Técnico VIII. Primer vuelo el

01.12.78, ferry Aeroparque-Brigada Aérea. Asignado el 16.08.79 al Grupo 6 de Operaciones Dagger del Commando Aéreo de Defensa. Asignado al II Escadrón Aeromóvil. Derribado el 21.05.82, por impacto AIM-9L Sidewinder, lanzado por el Sea Harrier FRS.1 ZA190 del Lt. Steve Thomas. Piloto Mayor Gustavo Piuma Justo, ejectado."

This excellent series deserves the support of every enthusiast of the small air forces, especially those interested in South America. This issue, as well as other of this series, is available from the SAFCH Sales Service for \$25.00 plus postage.

Xin Jinde's Model Building Notes: The Tiger Family by Xin Jinde. 29.7cm x 21.0 cm, ISBN: 978-957-41-6621-3 (SC). Published by the author: PO Box 65-324, Taichung, Taiwan 40399, ROC. E-mail: www.rocachc.org.

The book contains 112 pages with 104 b/w photos, 67 color photos, 1 map, 18 b/w line drawings, 58 color line drawings, 4 charts, and 6 Appendixes.

This is, in my opinion, the ultimate reference book on the Northrop F-5 Tiger Series fighter in Republic of China Air Force (ROCAF) service. Within the 112 pages the author has managed to pack everything that one would want to know about the F-5s roaming the Taiwan sky. The roughly A-4 format soft cover book is divided into 4 Chapters and 6 Appendixes as follows:

Chapter 1 – Chronology

Chapter 2 – A closer look at the F-5s:

1. AFB open house and static displays of retired warbirds.
2. The F-5 Series analyzed.
3. Sub-Types and details:
 - F-5E
 - F-5F
 - RF-5E
 - Tiger 2001
 - Common features

Chapter 3 – Camouflage and markings.

Chapter 4 – Under the wings

Appendix:

1. List of F-5 model manufacturers.
2. ROCAF F-5E serial numbers.
3. ROCAF F-5F serial numbers.

4. ROCAF RF-5E serial numbers.
5. ROCAF F-5E/F Aggressors
6. Bibliographies

Though written in Traditional Chinese, Mr. Xin's model building notes would be invaluable to non-Chinese readers nonetheless inasmuch as the book is so profusely illustrated with painstakingly researched colors-and-markings drawings by the author, and walk-around style detailed photographs (probably mostly shot by the author as well). Mr. Xin's drawings and photographs constitute the universal visual language that should appeal to modelers worldwide. As noted above, this writer believes Mr. Xin's book the *sine qua non* reference of the Northrop Tiger Family series fighter in service with the ROCAF.

In this age of the Internet, one would tend to believe that everything is available in the net. However, Mr. Xin's book has proven to be a deviation from this 'norm'. The information presented in Xin Jinde's Model Building Notes: The Tiger Family is unique that it has shattered the afore-mentioned preconception. Thanks to Mr. Xin. His book is the living proof that there is still life left in the book publishing sector to buck the trend of retreating from the ubiquitous internet encroachment. Above all, at times it may be more desirable to curl up in bed flipping pages from a book. The joy and the comfort associated with reading an actual book are not quite the same as provided virtually via an electronic reading device.

To order a copy of this book visit <http://magicdragonbooks.com> or contact magicdragonbooks@gmail.com.

D. Y. Louie, P.E. (SAFCH #544), USA.

RAAF Colours Schemes & Markings, 1921-1951: Parts 6a and 6b, by Ian K. Baker.

As usual, Ian can describe the AHCB better than I can: "1945 opened with the RAAF gearing to flight beside the RAF in the forward defence of Malaya, Singapore and the NEI. But within the space of some four months that had all completely changed: the RAF had disappeared from the scene, most of the seas and territories to Australia's near north had fallen to the enemy and the

RAAF was now fighting alongside the USAAF.

"Those were the days when fliers had to rely heavily on being able to visually discern friends from enemies. A different ally, flying different aircraft wearing different camouflage and markings, was bound to prompt a major re-think of RAAF national insignia.

"RAAF strength, first of all with aircraft built in the USA - Kittyhawks, Airacobras, Bostons, Buffalos – some wearing camouflage finishes intended for the USAAF, some wearing camouflage to suit British or Dutch requirements. Then came Beaufighters from the UK, some in RAF Temperate Land Scheme, many in Temperate Sea Scheme, followed by tropicalised Spitfires in Desert Scheme.

"Part 6 of this series provides a close study of the camouflage and markings of eighteen different 1942 RAAF aircraft, covering a great many camouflage scheme variations, of which several might be rather unexpected and many far away from what some readers might assume to be the norm ... that good old Foliage Green-Earth Brown-Sky Blue formula still to be found repeated again and again in some publications and modellers' guidelines. In fact, the realities were frequently very different and much more interesting."



AHCB #72 begins with a 4-page background of how Australians prepared for the seemingly inevitable invasion with the military setting up the "legendary Brisbane Line" to defend the

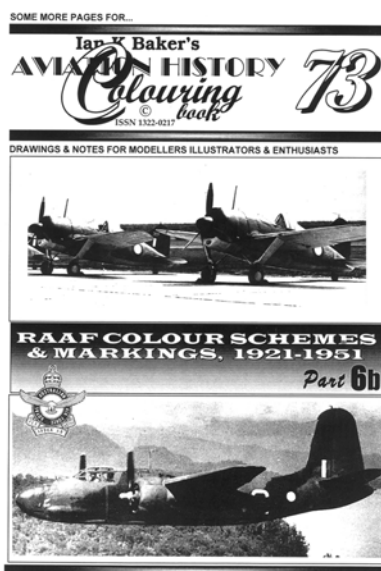
population centers in south-eastern Australia, the digging of zig-zag trenches in school yards, and the issuing of pamphlets on organizing guerrilla units to continue armed resistance against an occupying force.

This is followed by a 4-page description of the changes in markings including 4 cleverly-designed drawings showing the markings at the start of 1942, circa April and July 1942, August 1942, and October 1942.

Two pages describe the many suggestions on how to change the RAAF serial designations to prevent the enemy from gathering useful information. Nothing was done because it was feared that the Japanese would then realize how much vital information was being gained from the study of the serials number of their a/c.

Nine pages of multi-view tone drawings and/or photos follow [Catalina, Beaufort, Boomerang, Moth, Oxford, Hudson (2), Kittyhawk (4), Airacobra (2), & Buffalo (2)].

In all there are 22 pages with 11 photos, 2 maps, and 9 pages of drawings.



AHCB #73 continues the discussion of RAAF markings with 3-view camouflage drawings for the Boston and Beaufighter, and multi-view tone drawings for the Boston, Beaufighter, and Spitfire.

The story of RAAF camouflage and markings in 1942 ends with a presentation of Aircraft General Instruction No. C.11, dated July 31,

1942..."chapter and verse".

In all there are 20 pages with 6 photos and 5 pages of drawings.

Parts 6a and 6b of RAAF Colour Schemes & Markings 1921-1951 are highly recommended to all modelers contemplating building models of RAAF WW2 a/c.

AHCBs are obtainable air mailed to anywhere direct from Ian Baker. An order form (including alternative payment details in other currencies) mailed or faxed upon request. Ian K. Baker, 31A Mercer St., Queenscliff, VIC. 3225, Australia. E-mail: ianbaker@arc.net.au.

Lockheed Hercules Production List 1954-2013, by Lars Olausson. 29th Edition. €15 in Europe, £10 in UK, US\$21 worldwide postage included. Cash in envelope. Lars Olausson, Örsuddevägen 234, S-530 32 Sätenäs, Sweden.

This volume, the twenty-ninth edition of Lars' "labour of love", brings the Lockheed Hercules Order Book up to deliveries scheduled for 2012/2013. Among these are six C-130J-30 for Iraq (YI-304 – YI-309).

For those of you who are not familiar with this series, you are missing out on what is, without a doubt, the best of its kind. The heart of the book is the listing of all Hercules produced including their c/n, model designation, initial and all subsequent owners, registration number, and dates of delivery. For each individual aircraft, the Notes column includes detailed information about its history even including the various color schemes carried. This section of the book consists of 134 information-packed pages.

In addition, there are 30 pages of informative appendices. The most useful of these for the enthusiast of the small air forces are the c/ns of aircraft by Government Operators. First, check out your favorite air force and then go to the listed c/ns to read the history of each of their C-130s. Also useful is a list of Destroyed Aircraft arranged chronologically.

This excellent book can be ordered directly from the author. Also, the review copy is available from SAFO for \$21.00 postage included.

Linden Hills Decals

Linden Hills Decals continues their exciting series on the post-Soviet Air Forces with decals for **Azerbaijan**, **Turkmenistan**, and **Kazakhstan**. Each set is available in both 1/72 and 1/48 scale (except the Kazakhstan set which is also available in 1/32 scale). Each is accompanied by a multi-page, full-color instruction sheet including a detailed history of the Air Force, multi-view drawings, and photos of the subject aircraft, as well as identification of the camouflage colors by FS equivalents.

The decals sheets are excellent and contain all the insignia and marking necessary to finish models of all the aircraft illustrated.



Azerbaijan, 1/72-scale decals. Linden Hill Decals LHD72021. \$18.99.

Aircraft covered are: L-39 Albatros, MiG-25 Foxbat, MiG-29 Fulcrum, Mi-8T Hip, Mi-24 Hind (2), Mi-24G Super Hind, Su-17M3 Fitter, Su-25 Frogfoot, and Su-24MR Fencer. The decal sheet measures 95 mm by 195 mm.

These decals are also available in 1/48-scale. The decal sheet is the same size and the price is the same, but there

are fewer subjects (6 instead of 10): LHD48021.



Turkmenistan, 1/72-scale decals. Linden Hill Decals LHD72022. \$17.99.

Aircraft covered are: Mi-8T Hip (2), Mi-8MT Hip, Mi-24P Hind, MiG-25PD Foxbat, MiG-29 Fulcrum (2), MiG-29UB (2), Su-25 Frogfoot, and Su-25UB Frogfoot. The decal sheet measures 95 mm by 195 mm.

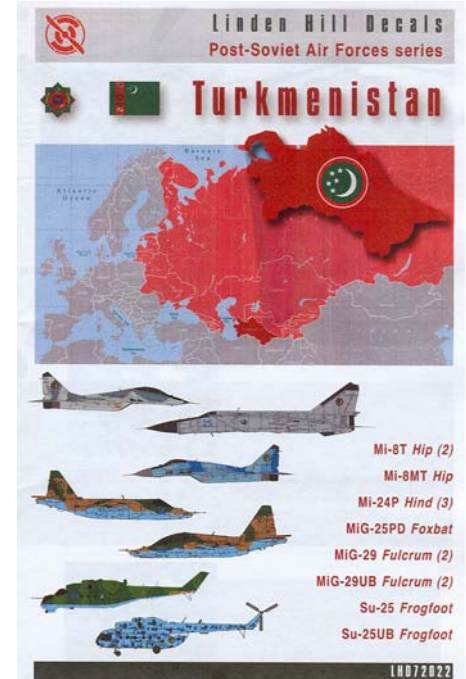
These decals are also available in 1/48 scale. The decal sheet is the same size and the price is the same, but there are fewer subjects (10 instead of 13): LHD48022.

Kazakhstan: Snow Leopards of the Seven Rivers. 1/72-scale decals. Linden Hill Decals LHD72023. \$18.99.

This set is a little different from the other Linden Hill Decals review herein. Instead of providing decals for a variety of aircraft types these decals are limited to Flankers and Floggers from the elite units stationed at the 604th Air Base of the Air Force of Kazakhstan, the "Snow Leopards of the Seven Rivers". Aircraft covered are six Su-27 Flanker Bs (-M2

and -S sub-types), two Su-27 Flanker Cs (-UB and -UBM2 sub-types), one MiG-23UB Flogger, and three MiG-27D Floggers. The decal sheet measures 95 mm by 195 mm.

Set LHD48023 has the same size decal sheet, but covers fewer aircraft. Set LHD32008 also covers fewer aircraft than LHD72023, but has two decal sheets



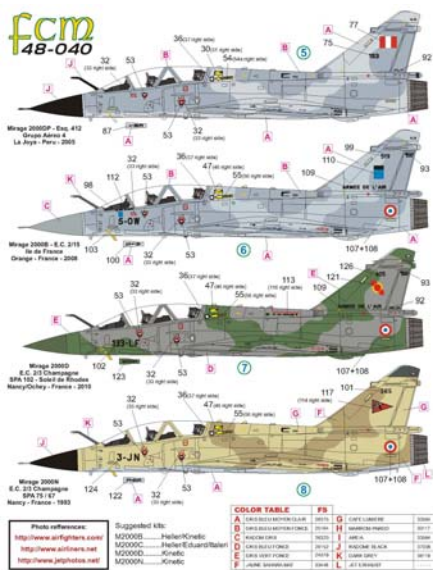
(140 mm by 215 mm and 50 mm by 190 mm).

[Editor: LHD48021, LHD48022, LHD48023, and LHD32023 are available from the SAFCH for \$18.00 each including postage. The SAFCH Sales List also carries other Linden Hill decals of the "Post-Soviet Air Forces". Other scales and the earlier sets for Lithuania, Armenia, and Georgia are available directly from: Linden Hill Ltd., PO Box 543, Crugers, NY 10521-0543, USA. E-mail: contact@lindenhillimports.com. Website: www.lindenhillimports.com.]

FCM Decals Brazil

FCM Decals of Brazil has released six new decal sets. Three of the set, all in 1/48-scale, are of small-air-force interest and these are reviewed below. The other three are on USN Tomcats: 72-041 three VF-114 Aardvarks; F-14A; 72-042 three VF-111 Sundowners F-14As, and 144-033 eight VF-114 Aardvarks F-14A.

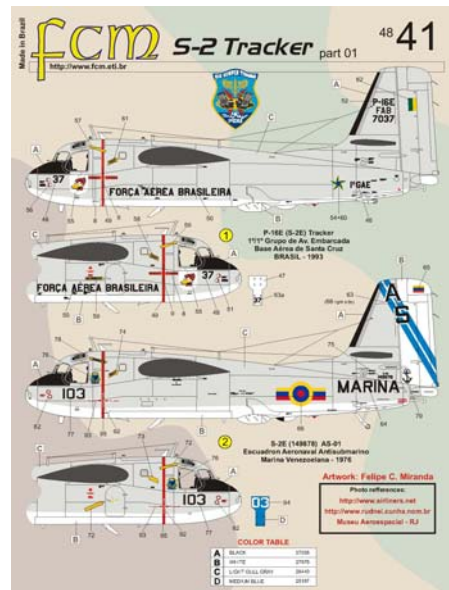
All sets include a multi-page full-color instruction sheet with full camouflage, markings, and stenciling details. The SAFCH will not be carrying any of these decals, but if you're interested, contact the editorial office for more information and I can order them for you directly from Brazil.



Peru & France Mirage 2000, FCM 48-040. 1/48-scale decals. FCM Decals, Brazil.

This set includes decals for eight Mirage 2000s; Brazil *Mirage 2000C* – 1^o

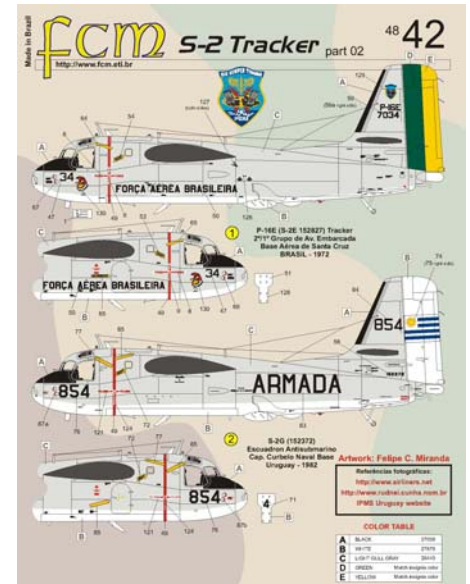
G.D.A., Esq. Jaguar, Anapolis – 2007 and *Mirage 2000B* – 1^o *G.D.A., Esq. Jaguar, Anapolis* – 2007. Peru *Mirage 2000DP* – *Esq. 412, Grupo Aereo 4, La Joya* -2009. France: *Mirage 2000C* – *E.C. 2/005, Ile de France, Orange* – 2008; *Mirage 2000-5F* – *E.C. 1/003, SPA 3/103 –Cigognes, Dijon* – 2010; *Mirage 2000B* – *E.C. 2/15, Ile de France, Orange* – 2008; *Mirage 2000D, E.C. 2/3 Champagne, SPA 102 – Soleil de Rhodes, Nancy/Ochey* – 2010; and *Mirage 2000N, SPA 75/67, Nancy* – 1993.



Brazil & Venezuela S-2 Tracker, 1/48-scale decals. FCM 48-041. FCM Decals, Brazil.

This set contains decals for three Trackers: Brazil *P-16E 7037* (S-2E), 1^o/1^o *Grupo de Av. Embarcada, Base Aérea de Santa Cruz* – 1993. Venezuela: *S-2E* (149878) *AS-01, Escuadron*

Aeronaval Antisubmarino, Marina Venezolana – 1976 and *S-2E* (149280) *AS-01, Escuadron Aeronaval Antisubmarino, Marina Venezolana* – 1982.



Brazil & Uruguay S-2 Tracker, 1/48-scale decals. FCM 48-042. FCM Decals, Brazil.

This set includes decals for three Trackers: Brazil: *P-16E 7034* (S-2E 152327), 2^o/1^o *Grupo de Av. Embarcada, Base Aérea de Santa Cruz* – 1978 and *P-16E 7030* (S-2E 152329), 2^o/1^o *Grupo de Av. Embarcada, Base Aérea de Santa Cruz* – 1978. Uruguay: *S-2G 854* (152372), *Escuadron Antisubmarino, Cap. Curbelo Naval Base* -1982.

Mark 1 Dozen Sets

“The ‘Dozen Set’ line of handbooks is aimed especially at scale modellers. Each title describes twelve particular aeroplanes, documented by period photos, and also brings useful detailed shots which can be utilised in finishing the models. A comprehensive decal sheet is added for modellers’ convenience. Three variants of each title are available (two in case of the Me 210/410), otherwise the books are identical, except for the decal sheets included.”

The 32-page A-4 size landscape

format booklets each contain 2 pages on each individual aircraft with a short history, a couple of well-reproduced photos, and full-color 4-view drawings (port, starboard, top, & bottom). The final 4 three pages present color photos of interior and exterior details.

The decal sheets are large, comprehensive, and of excellent quality.

The cover price of \$30 may seem excessive, but when you considers that the booklet alone would probably cost upward of \$20.00, the \$10.00 for the

decals is a bargain.



Messerschmitt Me 210/410. 1/48-scale decals. Mark I Dozen Set MKD48010.

The 12 aircraft described are: seven Luftwaffe, one Hungarian, two RAF, one Soviet, and one Japanese. The decal sheet measures 245 mm by 200 mm (9.5" by 7.75"). These decals are also available in 1/72 scale.



Panavia Tornado. Mark I Dozen 1-72-scale decals. Set MKD72011.

The 12 aircraft described are: four RAF, three Luftwaffe, one Marineflieger, three Italian, and one Saudi Arabian. The decal sheet

measures 195 mm by 165 mm (7.75" by 6.5"). These decals are also available in 1/144- and 1/48-scale.



Saab JAS 39 Gripen. 1/144-scale decals. Mark I Dozen Set MKD144012.

The 12 aircraft described are: five Swedish, two Czech, two Hungarian, one South African, and one Thai. The decal sheet measures 100 mm by 100 mm (4" by 4"). These decals are also available in 1/72- and 1/48-scale.

"These publications are published by and are distributed by MARK I, which is the exclusive distributor of all "4+"

publications, and in the U.S.A. the whole range is carried by UMM-USA, Stevens International; in Australia by Platypus and Red Roo Models, in the UK by Aviation Book Centre Ltd., LSA Models, Ian Allan, The Aviation Bookshop, Hannants. The recommended retail prices in these countries are respectively: \$ US\$ 30.00/ AU\$ 42.00 / £ 19.90 (€ 25.00) "

[Editor's note: One copy each of these review sets is available from the SAFCH Sales Service for US\$ 30, postage included. These sets, and those with decals in the other scales, are available from UMM-USA, Stevens International; in Australia by Platypus and Red Roo Models; in the UK by Aviation Book Centre Ltd., LSA Models, Ian Allan, The Aviation Bookshop, Hannants. Or, directly from the publisher (Mark I Ltd, Jordana Jovkova 3251, 143 00, Praha – Modrany, Czech Republic. E-mail: mark1@cmail.cz. Website: www.4pluspublications.com).for \$30.00, AU\$ 42.00, £ 19.90, € 25.00.]

-Letters-Letters-Letters-Letters-Letters-Letters-Letters-Letters-Letters-Letters-

[Editor's note: The following letter provides more information about the Bolivian Fokker C.V (see SAFO #136)].

"Herr Magnus Degen worked with Fokker in Amsterdam as photographer and draughtsman. He made, up to the early thirties, a lot of 3-views, which were used by the Sales Dept. etc. After the occupation in 1940 Herr Degen, who was an unpleasant person, soon appeared in Nazi uniform. In late 1944, he withdrew to Germany, taking with him a lot of photo material, etc. This was 'lost'.

"What remained is a handwritten photo register (booklet), which lists 3335 photos chronologically up to early 1934. Regrettably most photos are not dated, so we have to compare the aircraft types mentioned to decide the period.

"As for Bolivia (titles translated into English). 1290-1294:The Bolivian Prince (? FG) with messrs. Grasé (a test pilot) and Rasch. 1412-1416: Close-ups of MG armament. 1450: Drawing MG armament. 1451:Assembly: 1452: C.5 at Soesterberg.

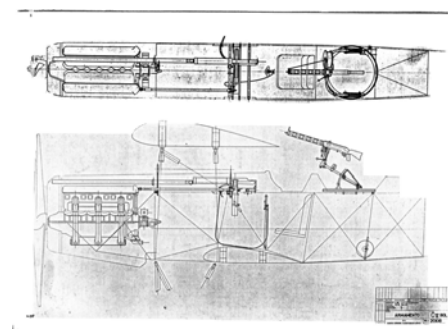
"The last photos were preceded by a series of the D.14 fighter, 2nd version (1446-1449). The D.14 was lost in a fatal crash the 3rd October 1925. Test pilot Hermann Hess was killed. It had made the first flight 28 March 1928 (first photo series 1372-1375). The photos in the 1400-series must thus be dated in the summer of 1925.

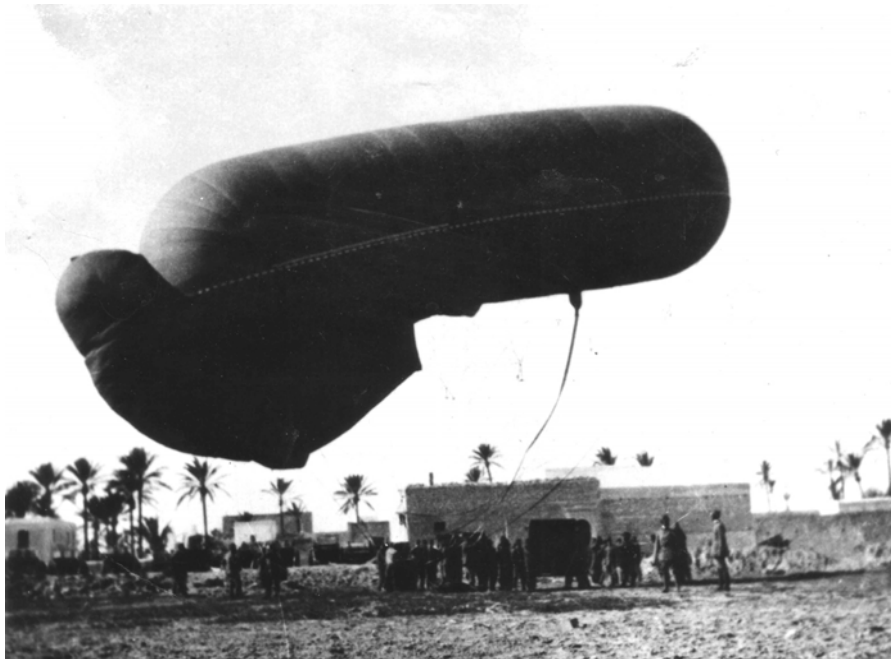
"The list of orders, transferred from 1925 to 1926, does not mention Bolivia, which means that the transaction was completed. Accountants' reports after 1925 have been lost.

"I scanned my photocopy of the armament. I cannot make out date and year, but the month is V, thus May.

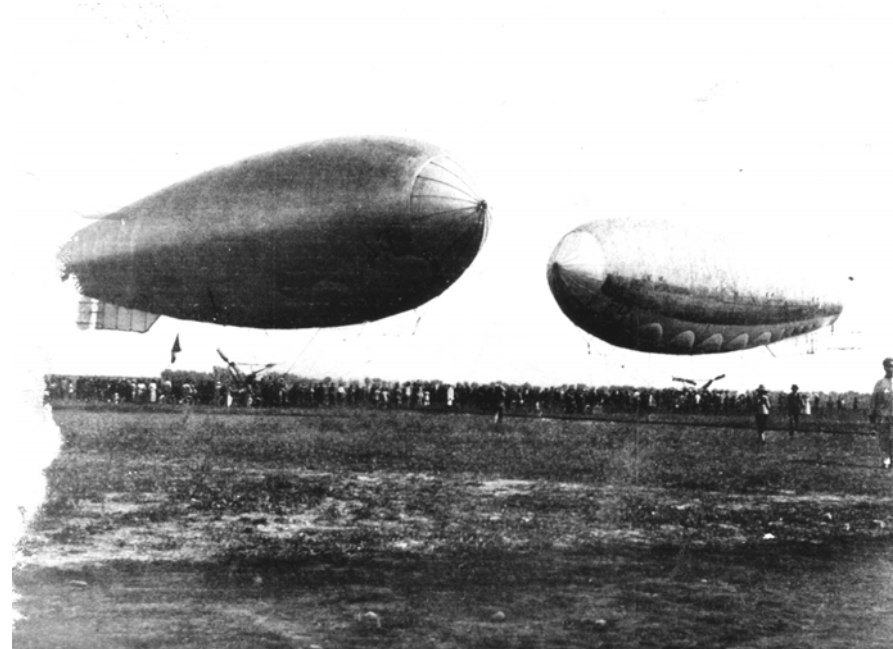
"The C.5 was first flown in May 1924. Unfortunately the development history is not clear. The type was demonstrated for the Dutch LVA in late 1924. The Bolivian order surely was in 1925."

Frits Gerdessen (SAFCH #12), Netherlands.





A balloon of the Aerostatic Section.



Two airships of the Aerostatic Section



An Etrich Taube at Derna, 1912



Deperdussin at Derna. Officer in the center is Gaspare Bolla, the first Italian Airman killed in WW1



Deperdussins at Derna, 1912



A Bleriot in Libya



A Deperdussin at Derna, 1912



Anselmo Cesaroni with a Deperdussin at Derna